17791 - A Race Against the Clock: Too Much Nitrogen, Too Early?

Cycle: 32, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) J1205+4551	COS/FUV COS/NUV	2	07-Aug-2024 11:00:52.0	yes
02	(2) J1702+1803	COS/FUV COS/NUV	3	07-Aug-2024 11:00:53.0	yes
03	(3) J1851+6934	COS/FUV COS/NUV	2	07-Aug-2024 11:00:55.0	yes
04	(4) J1111+5631	COS/FUV COS/NUV	3	07-Aug-2024 11:00:57.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
08	(4) J1111+5631	COS/NUV	3	07-Aug-2024 11:00:58.0	yes
05	(5) J0240-0828	COS/NUV	3	07-Aug-2024 11:00:59.0	yes
09	(5) J0240-0828	COS/FUV COS/NUV	2	07-Aug-2024 11:01:01.0	yes
06	(6) J2253+1116	COS/FUV COS/NUV	3	07-Aug-2024 11:01:03.0	yes
10	(7) J0834+4343	COS/NUV	3	07-Aug-2024 11:01:04.0	yes
11	(7) J0834+4343	COS/FUV COS/NUV	2	07-Aug-2024 11:01:05.0	yes

26 Total Orbits Used

ABSTRACT

Chemical abundances encode the integrated star formation over the lifetimes of galaxies. Since stars produce different metals, e.g., nitrogen and oxygen, at different times, the relative abundance of N/O acts as a clock to determine the star formation history. Specifically, N/O describes the relative ratio of moderately old stars(>100 Myr) to very young stars (<10 Myr). Recently, JWST observations of an extreme star-forming galaxy only 440 Myr after the big bang have found extremely high-energy N IV] and N III emission lines. These lines suggest that the galaxy has a super-solar N/O ratio, implying a contradiction: this galaxy has existed for < 440 Myr but still has a substantial older stellar population that is responsible for the N enrichment. This galaxy has too much N too early in the universe. However, few galaxies at any redshift have similar high-ionization N emisison. Unearthing the mechanism that produces these emission lines is required to reveal the chemical enrichment of the first galaxies.

We propose 26 orbits of COS G160M + G185M spectroscopic observations of 7 local high-ionization galaxies. We will measure the FUV high-ionization emission lines (NIV], NIII, CIV, HeII, OIII], OIV), as well as describe their stellar populations. This will test the ionizing source within these galaxies and determine if the strong high-ionization emission arises from exotic non-stellar sources. These observations will map out the ionization structure of these galaxies to accurately determine their N/O values. Combined, these observations will construct a blueprint to interpret observations of the most extreme early galaxies to reveal the primitive relative abundance patterns.

OBSERVING DESCRIPTION

Goal:

The observational goal of our program is to use the high-resolution G160M and G185M gratings on COS to obtain measurements of the N IV] 1483,1486 and N III] 1747,1749,1750,1752,1750 emission lines in 7 extreme N emission line candidates.

Target Acquisition:

We have excellent input coordinates for our sample from the previous optical spectroscopy studies, allowing us to utilize the ACQ/IMAGE mode for target acquisition with the PSA aperture and MirrorA for the COS/NUV configuration. For these acquitions, we have determined integration times necessary to reach a S/N >= 20. We assume a flat spectral distribution normalized by the GALEX FUV or SDSS u-band surface brightnesses, where each galaxy is compact in its optical imaging with a FWHM PSF diameter of ~2".

Science Exposures:

We will use the COS G160M and G185M gratings with central wavelengths determined by the redshifted location of the NIII] and NIV] emission lines in TIMETAG mode with the PSA aperture. Since not much is yet known about the behavior of the UV N III] and N IV] emission, we use the COS ETC with predicted UV line fluxes to determine the time necessary to achieve a S/N per resolution element of > 3 for the strongest lines in the NIII] multiplet. The total number of orbits necessary were determined considering the length of target visibility per orbit (APT) plus the approximate overheads: i.e., guide star acquisition (6 min), reacquisition (4 min), ACQ/IMAGE target acquisition (3 min), and science exposures (11 min for 4 exposures). We use a minimum of 2 FP-POS positions for each grating.

Visit

Proposal 17791, J1205+4551 (01) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Exposure 2 (J1205+4551 (01))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 3 (J1205+4551 (01))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

Fixed Targets

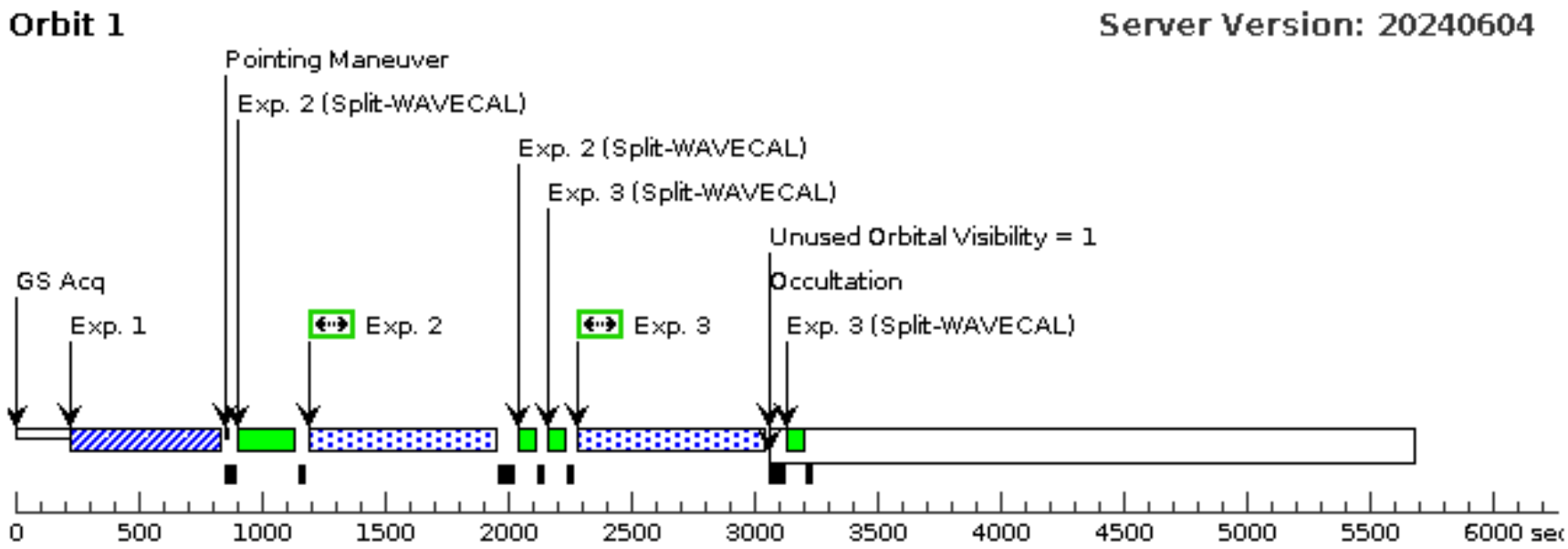
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	J1205+4551	RA: 12 05 3.5500 (181.2647917d) Dec: +45 51 50.94 (45.86415d) Equinox: J2000	Redshift: 0.0654	V=19.74 u = 20.5; FUV = 21.04; NUV = 20.58	Reference Frame: ICRS

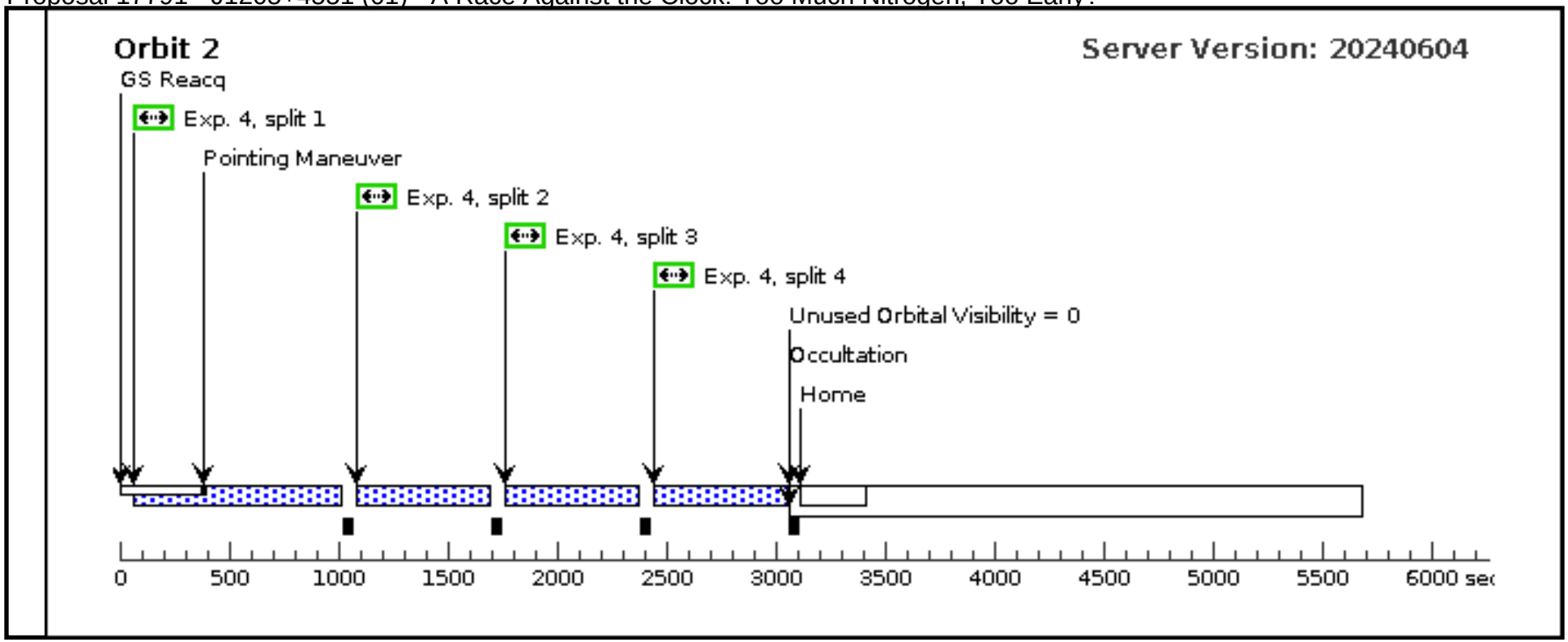
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1469333)	(1) J1205+4551	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				200 Secs (200 Secs) *[==>]*	*[1]*
2	(1855320)	(1) J1205+4551	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=1500; FP-POS=3			500 Secs (712 Secs) *[==>712.0 Secs]*	*[1]*
3	(1855320)	(1) J1205+4551	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=1500; FP-POS=4			500 Secs (712 Secs) *[==>712.0 Secs]*	*[1]*
4	(1855320)	(1) J1205+4551	COS/NUV, TIME-TAG, PSA	G185M 1864 A	FP-POS=ALL; BUFFER-TIME=2183			500 Secs (2364 Secs) *[==>591.0 Secs (Split 1)]* *[==>591.0 Secs (Split 2)]* *[==>591.0 Secs (Split 3)]* *[==>591.0 Secs (Split 4)]*	*[2]*

Orbit Structure




Orbit 2
Server Version: 20240604
GS Reacq
Exp. 4, split 1
Pointing Maneuver
Exp. 4, split 2
Exp. 4, split 3
Exp. 4, split 4
Unused Orbital Visibility = 0
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17791, J1702+1803 (02) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Exposure 2 (J1702+1803 (02))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 3 (J1702+1803 (02))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 4 (J1702+1803 (02))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

Fixed Targets

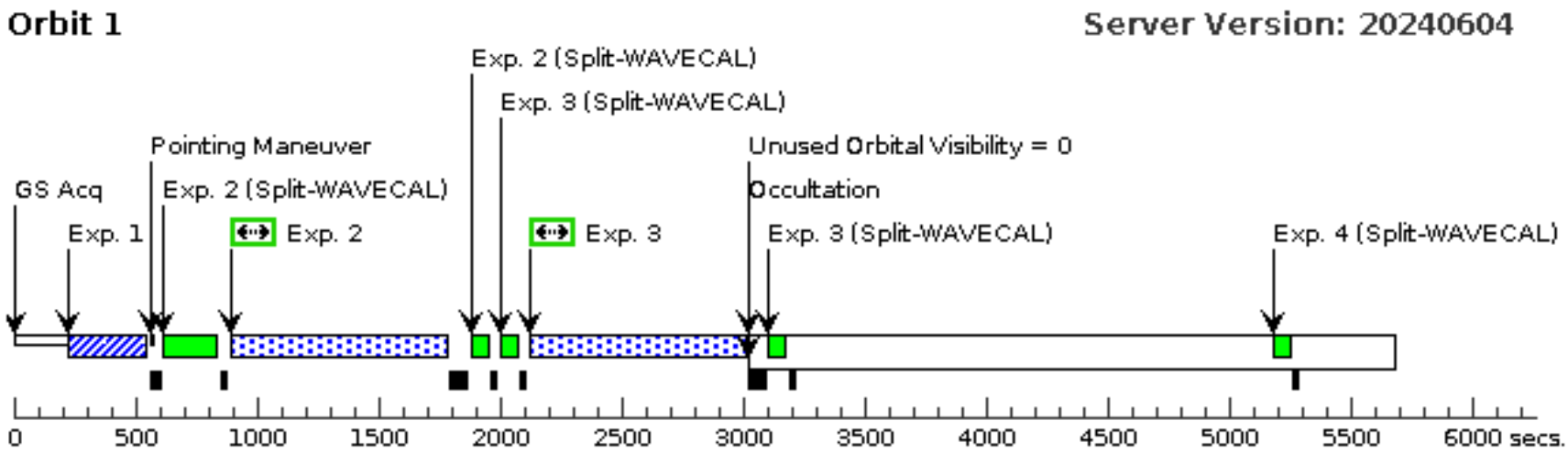
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	J1702+1803	RA: 17 02 33.5197 (255.6396654d) Dec: +18 03 6.30 (18.05175d) Equinox: J2000	Redshift: 0.0425	V=17.9 u=22.8; FUV = 19.14	Reference Frame: ICRS

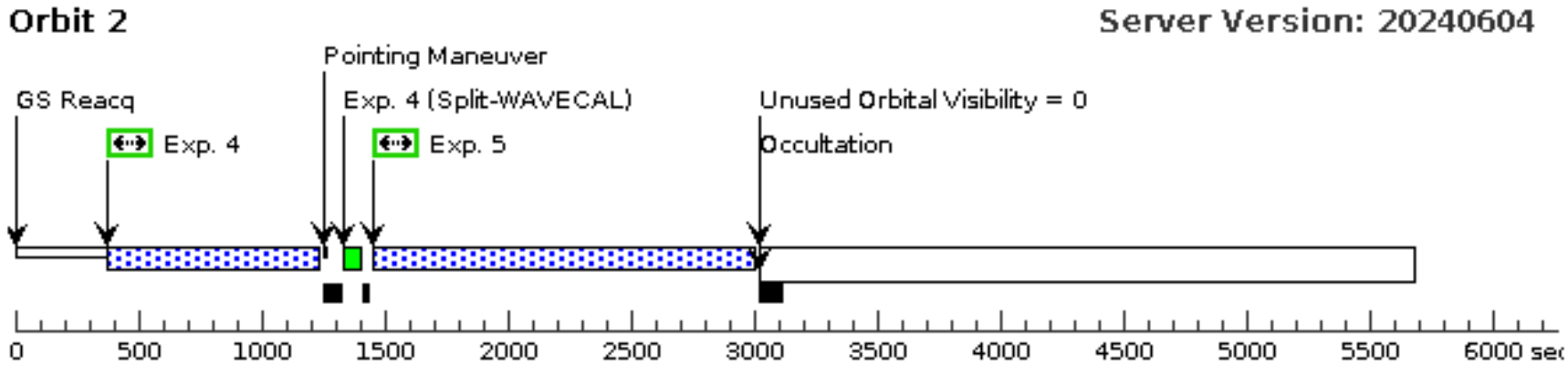
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

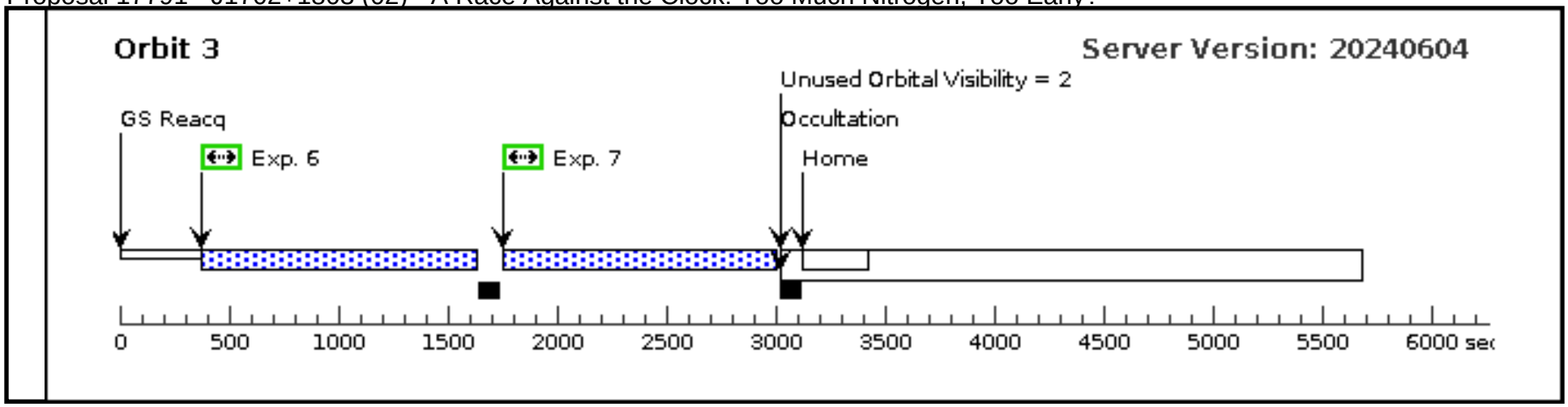
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927238)	(2) J1702+1803	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				54 Secs (54 Secs) *[==>]*	*[1]*
2	(1855323)	(2) J1702+1803	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=1455; FP-POS=2			500 Secs (837 Secs) *[==>837.0 Secs]*	*[1]*
3	(1855323)	(2) J1702+1803	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=1455; FP-POS=3			500 Secs (837 Secs) *[==>837.0 Secs]*	*[1]*
4	(1855323)	(2) J1702+1803	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=1455; FP-POS=4			500 Secs (810 Secs) *[==>810.0 Secs]*	*[2]*
5	(1855323)	(2) J1702+1803	COS/NUV, TIME-TAG, PSA	G185M 1817 A	FP-POS=2; BUFFER-TIME=1455			700 Secs (1200 Secs) *[==>1200.0 Secs]*	*[2]*
6	(1855323)	(2) J1702+1803	COS/NUV, TIME-TAG, PSA	G185M 1817 A	FP-POS=3; BUFFER-TIME=1455			700 Secs (1240 Secs) *[==>1240 Secs]*	*[3]*
7	(1855323)	(2) J1702+1803	COS/NUV, TIME-TAG, PSA	G185M 1817 A	FP-POS=4; BUFFER-TIME=1455			2 Secs (1239 Secs) *[==>1239.0 Secs]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 2
GS Reacq
Occultation
Exp. 6
Exp. 7
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17791, J1851+6934 (03) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Exposure 2 (J1851+6934 (03))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 3 (J1851+6934 (03))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

Fixed Targets

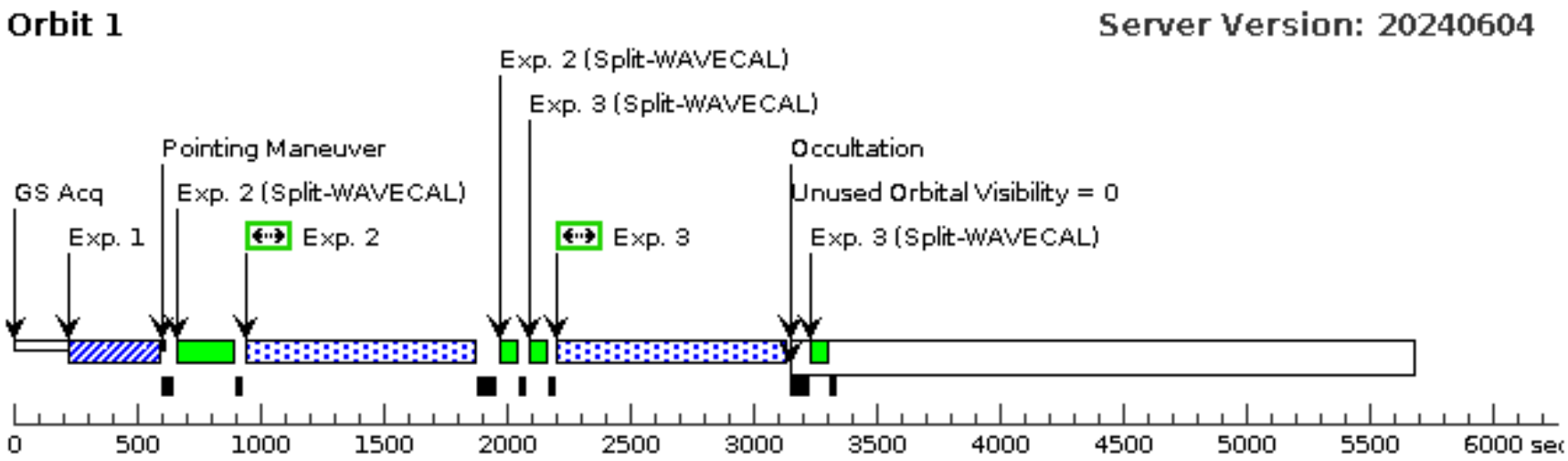
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	J1851+6934	RA: 18 51 17.0835 (282.8211812d) Dec: +69 37 59.09 (69.63308d) Equinox: J2000	Redshift: 0.025000	V=17.0 u=19.4	Reference Frame: ICRS

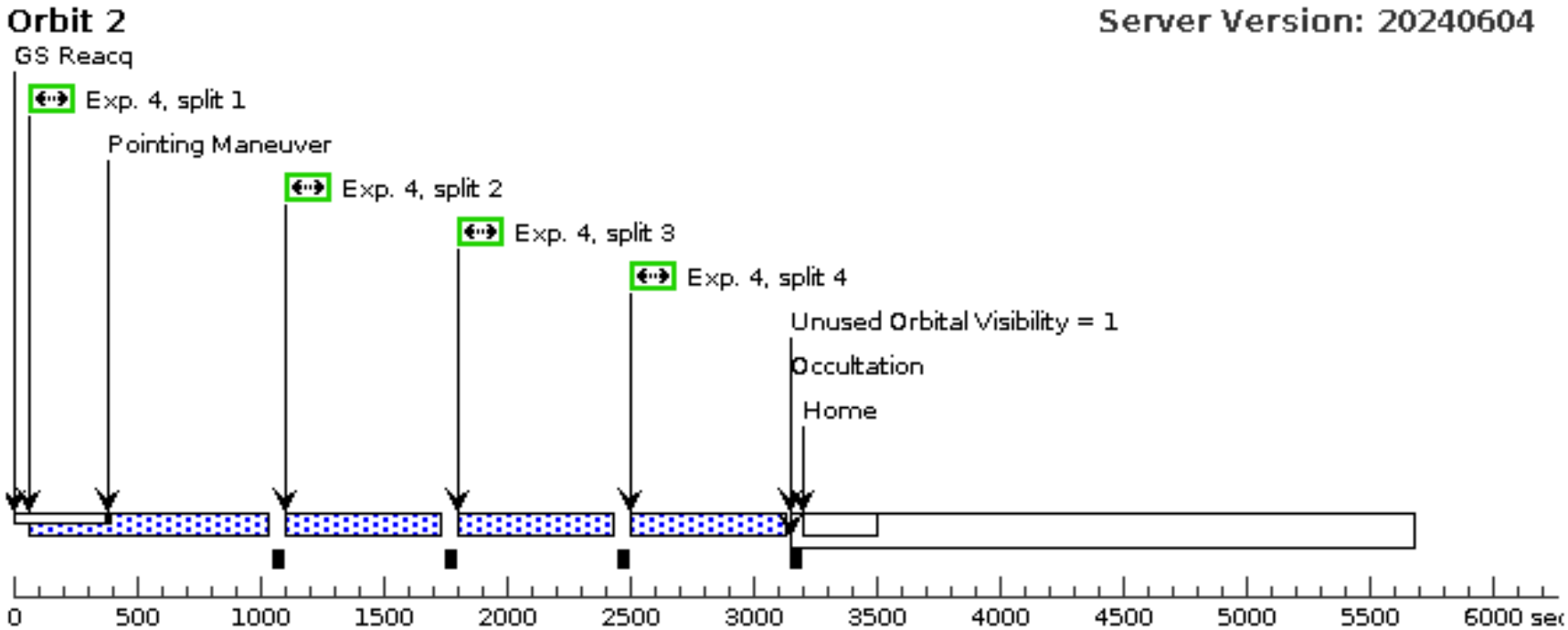
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927241)	(3) J1851+6934	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				76 Secs (76 Secs) *[==>]*	*[1]*
2	(1855323)	(3) J1851+6934	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1500; FP-POS=3			500 Secs (877 Secs) *[==>877.0 Secs]*	*[1]*
3	(1855323)	(3) J1851+6934	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1500; FP-POS=4			500 Secs (877 Secs) *[==>877.0 Secs]*	*[1]*
4	(1855323)	(3) J1851+6934	COS/NUV, TIME-TAG, PSA	G185M 1890 A	FP-POS=ALL; BUFFER-TIME=2183			500 Secs (2452 Secs) *[==>613.0 Secs (Split 1)]* *[==>613.0 Secs (Split 2)]* *[==>613.0 Secs (Split 3)]* *[==>613.0 Secs (Split 4)]*	*[2]*

Orbit Structure





Visit

Proposal 17791, J1111+5631 (04) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J1111+5631 (04)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

(Exposure 2 (J1111+5631 (04))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 3 (J1111+5631 (04))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 4 (J1111+5631 (04))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

Fixed Targets

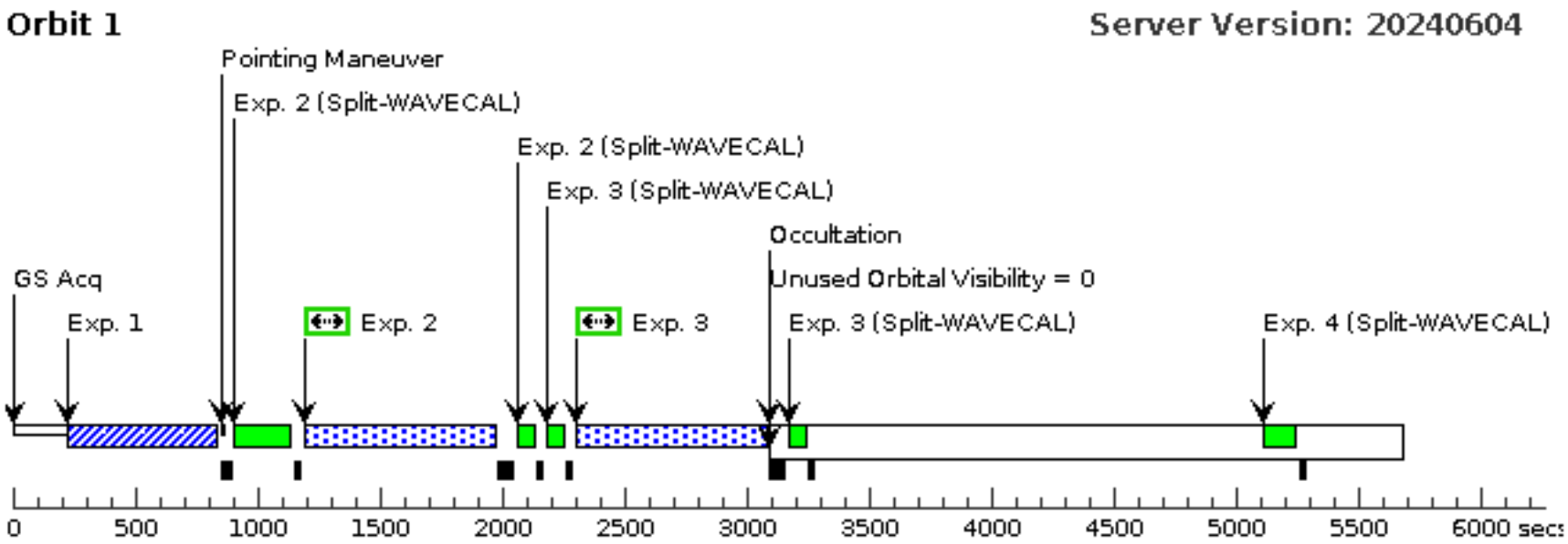
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	J1111+5631	RA: 11 11 31.0693 (167.8794554d) Dec: +56 31 41.08 (56.52808d) Equinox: J2000	Redshift: 0.010	V=19.6 u = 20.32	Reference Frame: ICRS

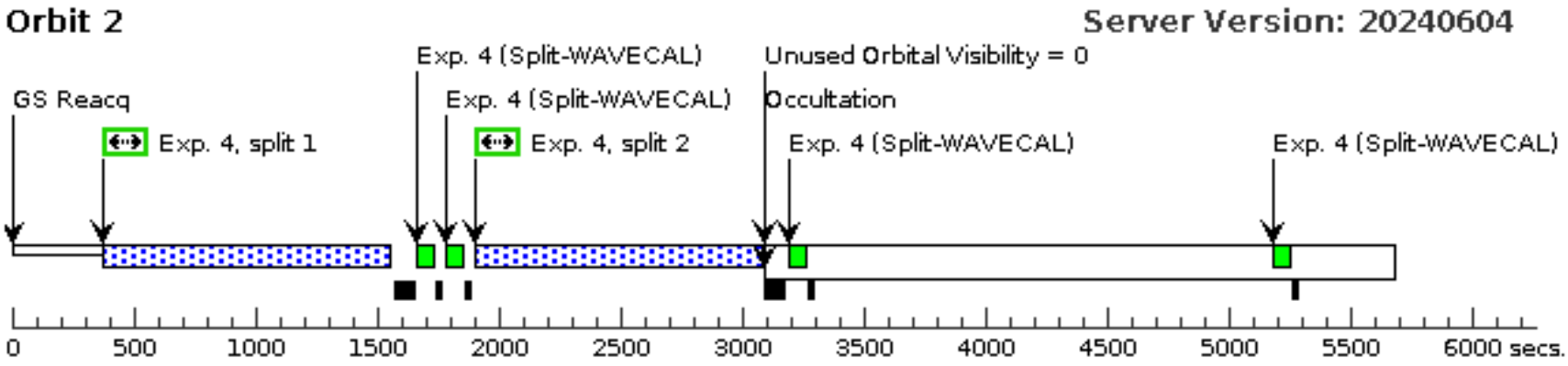
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

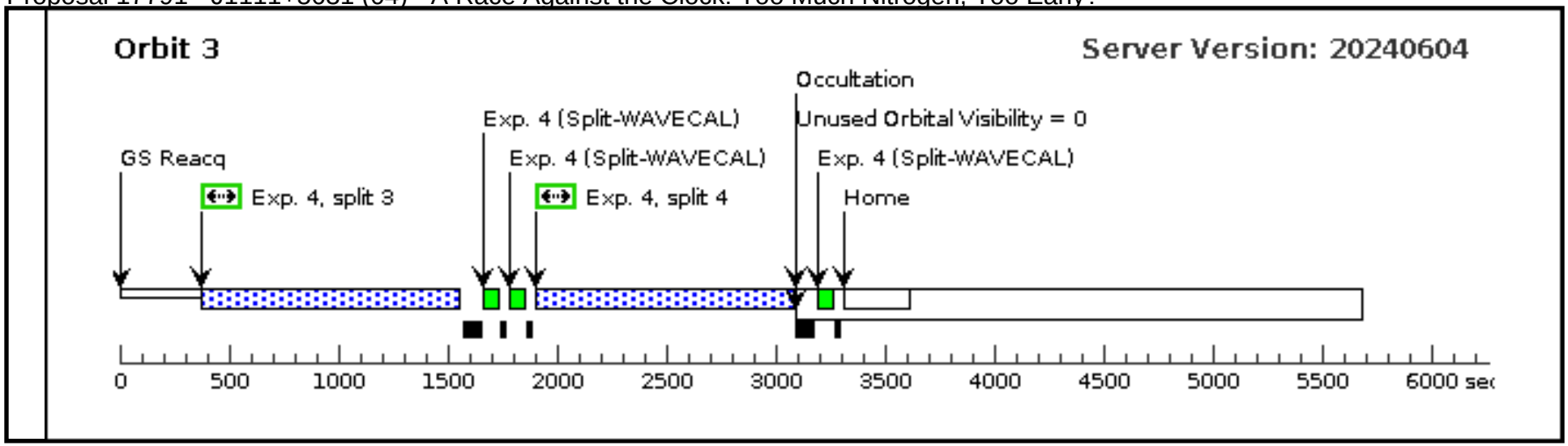
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927254)	(4) J1111+5631	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				200 Secs (200 Secs) *[==>]*	*[1]*
2	(1855323)	(4) J1111+5631	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1500; FP-POS=3			500 Secs (732 Secs) *[==>732.0 Secs]*	*[1]*
3	(1855323)	(4) J1111+5631	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1500; FP-POS=4			500 Secs (732 Secs) *[==>732.0 Secs]*	*[1]*
4	(1855323)	(4) J1111+5631	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1500; FP-POS=ALL			500 Secs (4520 Secs) *[==>1130.0 Secs (Split 1)]* *[==>1130.0 Secs (Split 2)]*	*[2]*
								[==>1130.0 Secs (Split 3)] *[==>1130.0 Secs (Split 4)]*	*[3]*

Orbit Structure






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

Visit

Proposal 17791, J1111+5631 (08) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Diagnostics

(J1111+5631 (08)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

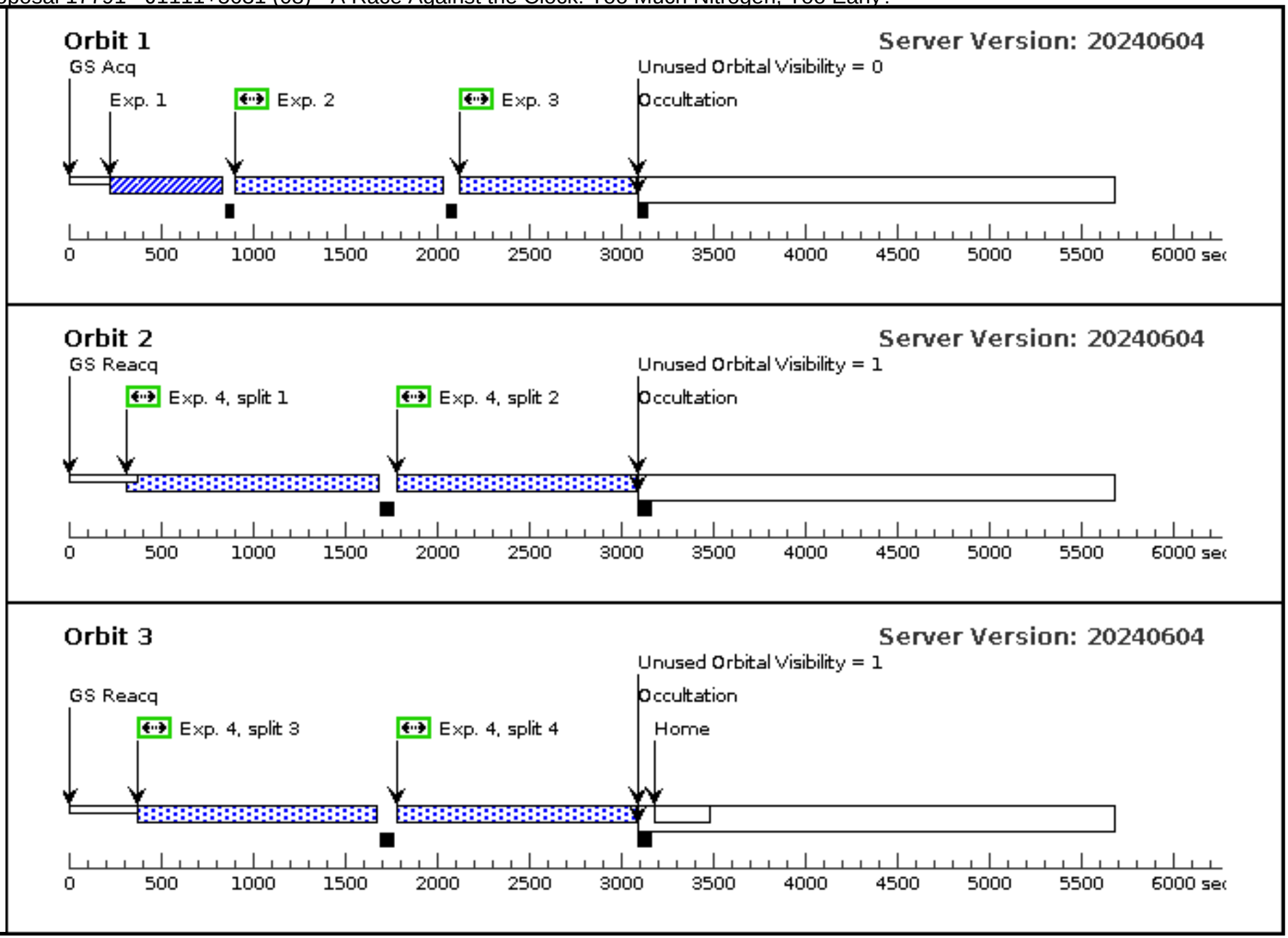
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	J1111+5631	RA: 11 11 31.0693 (167.8794554d) Dec: +56 31 41.08 (56.52808d) Equinox: J2000	Redshift: 0.010	V=19.6 u = 20.32	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927254)	(4) J1111+5631	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				200 Secs (200 Secs) *[==>]*	*[1]*
2	(1855323)	(4) J1111+5631	COS/NUV, TIME-TAG, PSA	G185M 1864 A	FP-POS=3; BUFFER-TIME=2183			500 Secs (944 Secs) *[==>944.0 Secs]*	*[1]*
3	(1855323)	(4) J1111+5631	COS/NUV, TIME-TAG, PSA	G185M 1864 A	FP-POS=4; BUFFER-TIME=2183			500 Secs (945 Secs) *[==>945.0 Secs]*	*[1]*
4	(1855323)	(4) J1111+5631	COS/NUV, TIME-TAG, PSA	G185M 1864 A	FP-POS=ALL; BUFFER-TIME=2183			500 Secs (5150 Secs) *[==>1287 Secs (Split 1)]* *[==>1288 Secs (Split 2)]*	*[2]*
								[==>1288 Secs (Split 3)] *[==>1287 Secs (Split 4)]*	*[3]*

Orbit Structure



Visit

Proposal 17791, J2040-0828 (05) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Diagnostics

(J2040-0828 (05)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

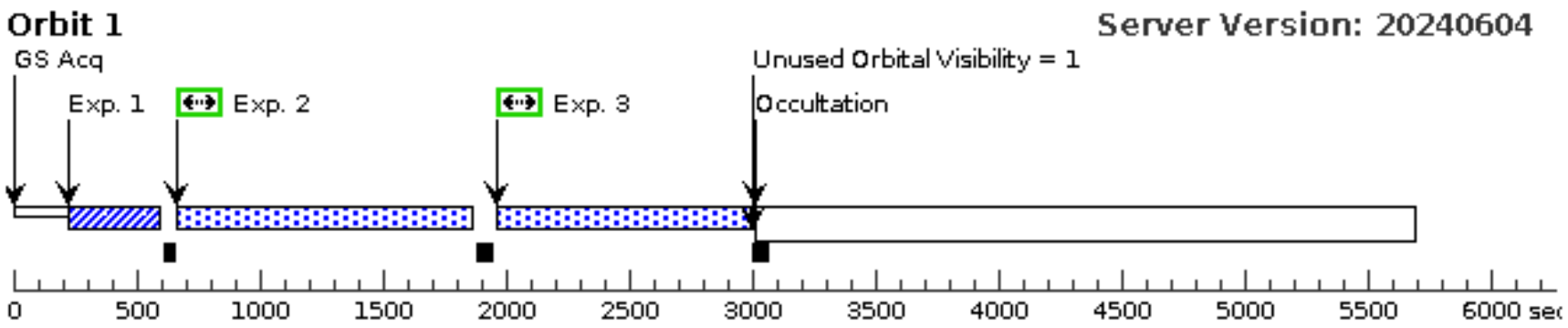
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	J0240-0828	RA: 02 40 52.1900 (40.2174583d) Dec: -08 28 27.41 (-8.47428d) Equinox: J2000	Redshift: 0.08223	V=18.93 u=20.3; FUV = 19.8	Reference Frame: ICRS

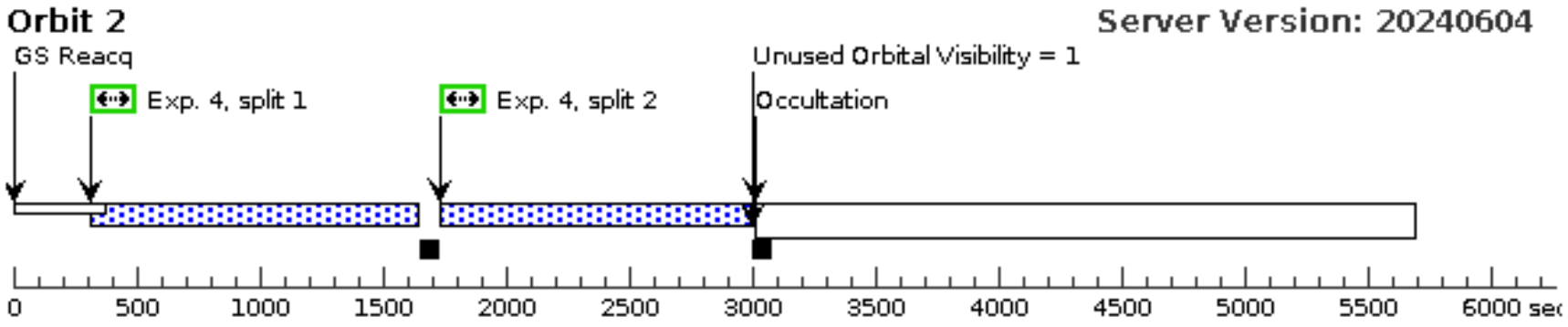
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

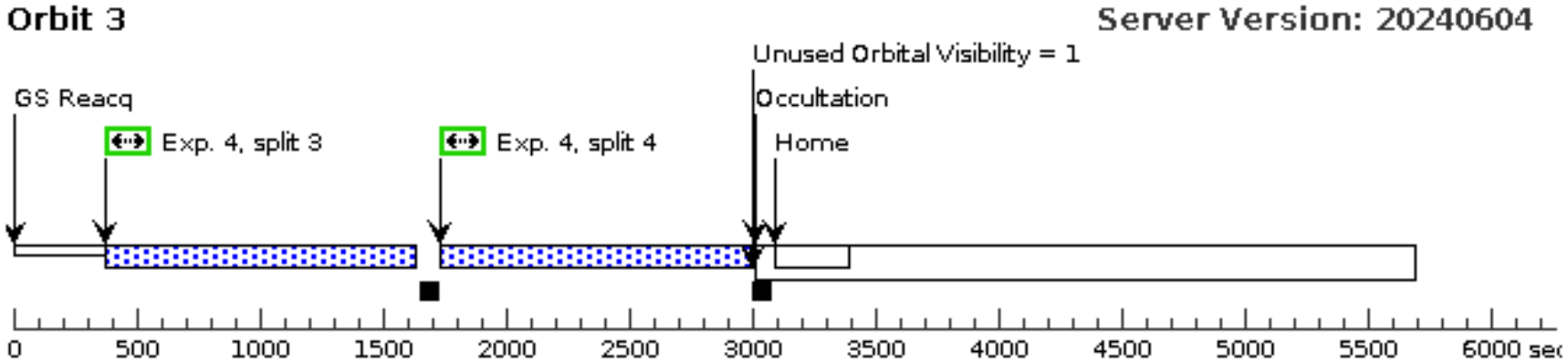
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927247)	(5) J0240-0828	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				80 Secs (80 Secs) *[==>]*	*[1]*
2	(1855323)	(5) J0240-0828	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=3; BUFFER-TIME=2183			500 Secs (1015 Secs) *[==>1015.0 Secs]*	*[1]*
3	(1855323)	(5) J0240-0828	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=4; BUFFER-TIME=2183			500 Secs (1015 Secs) *[==>1015.0 Secs]*	*[1]*
4	(1855323)	(5) J0240-0828	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=ALL; BUFFER-TIME=2183			500 Secs (4972 Secs) *[==>1243.0 Secs (Split 1)]* *[==>1243.0 Secs (Split 2)]*	*[2]*
								[==>1243.0 Secs (Split 3)] *[==>1243.0 Secs (Split 4)]*	*[3]*

Orbit Structure







Visit

Proposal 17791, J2040-0828 (09) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Exposure 2 (J2040-0828 (09))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

Fixed Targets

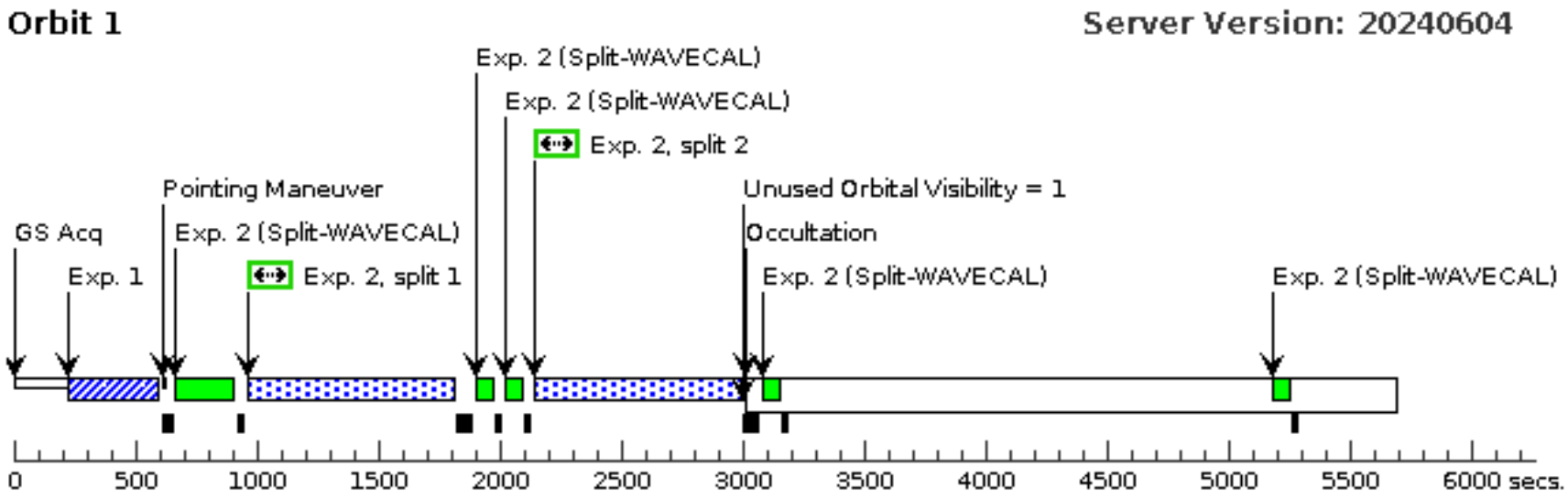
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	J0240-0828	RA: 02 40 52.1900 (40.2174583d) Dec: -08 28 27.41 (-8.47428d) Equinox: J2000	Redshift: 0.08223	V=18.93 u=20.3; FUV = 19.8	Reference Frame: ICRS

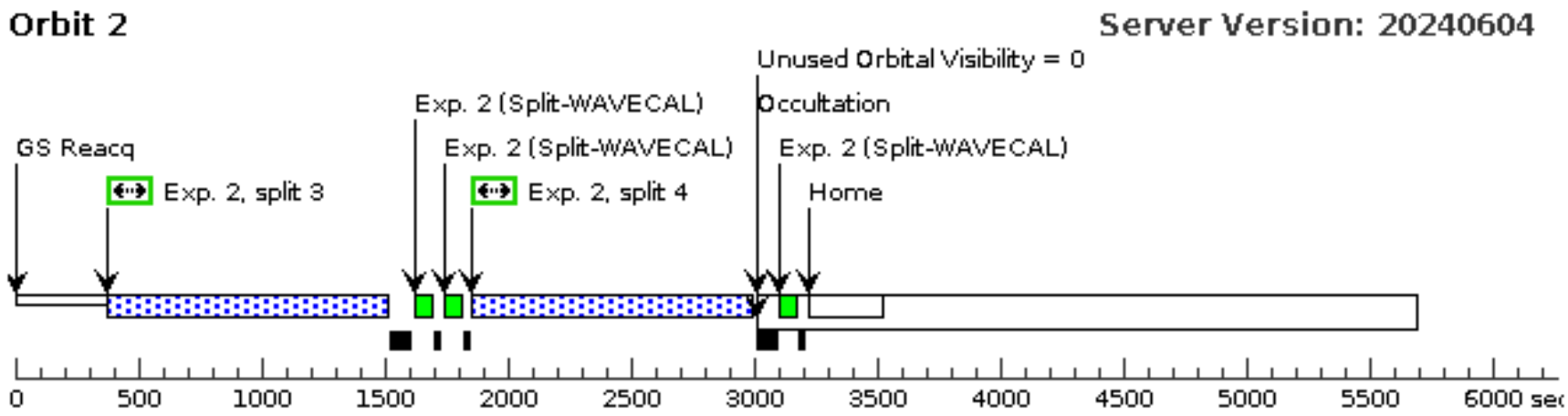
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927247)	(5) J0240-0828	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				80 Secs (80 Secs)	
								[==>]	***[1]***
2	(1855323)	(5) J0240-0828	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=1500; FP-POS=ALL			500 Secs (3774 Secs)	
								[==>802.0 Secs (Split 1)] *[==>801.0 Secs (Split 2)]*	***[1]***
								[==>1085.0 Secs (Split 3)] *[==>1086.0 Secs (Split 4)]*	***[2]***

Orbit Structure





Visit

Proposal 17791, J2253+1116 (06) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(J2253+1116 (06)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

(Exposure 2 (J2253+1116 (06))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 3 (J2253+1116 (06))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

(Exposure 4 (J2253+1116 (06))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

Fixed Targets

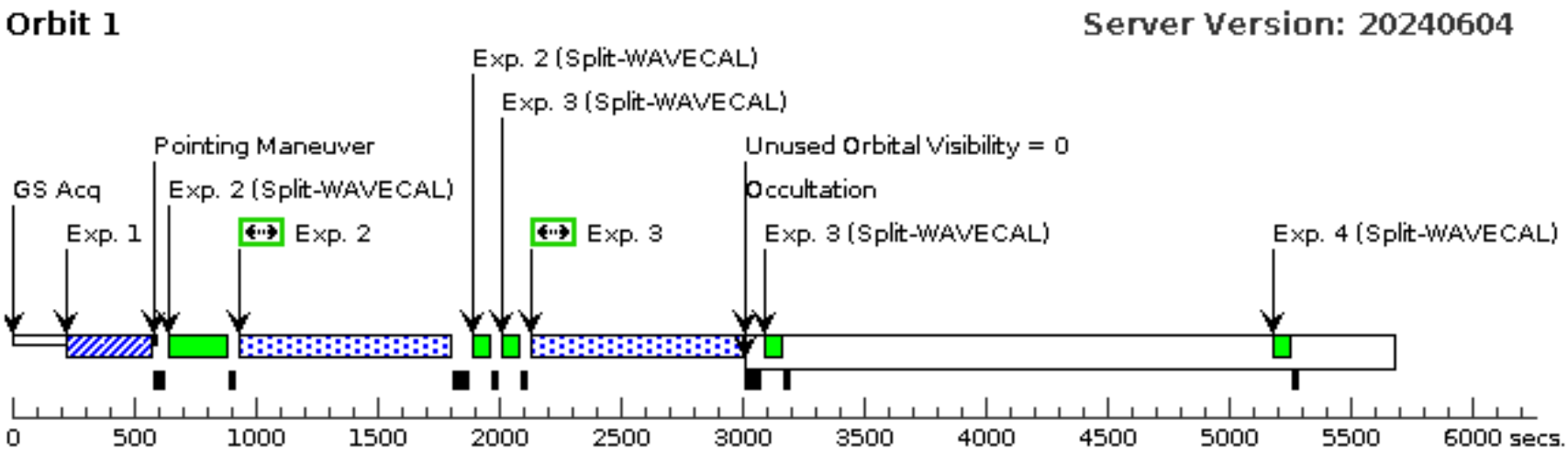
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	J2253+1116	RA: 22 53 42.4087 (343.4267029d) Dec: +11 16 30.65 (11.27518d) Equinox: J2000	Redshift: 0.007	V=16.87 u=17.9	Reference Frame: ICRS

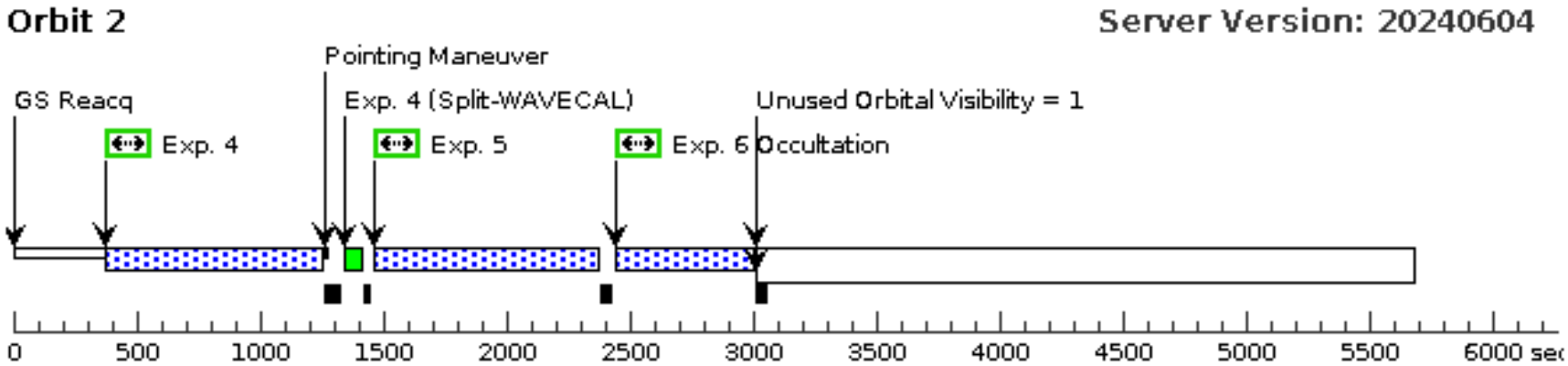
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

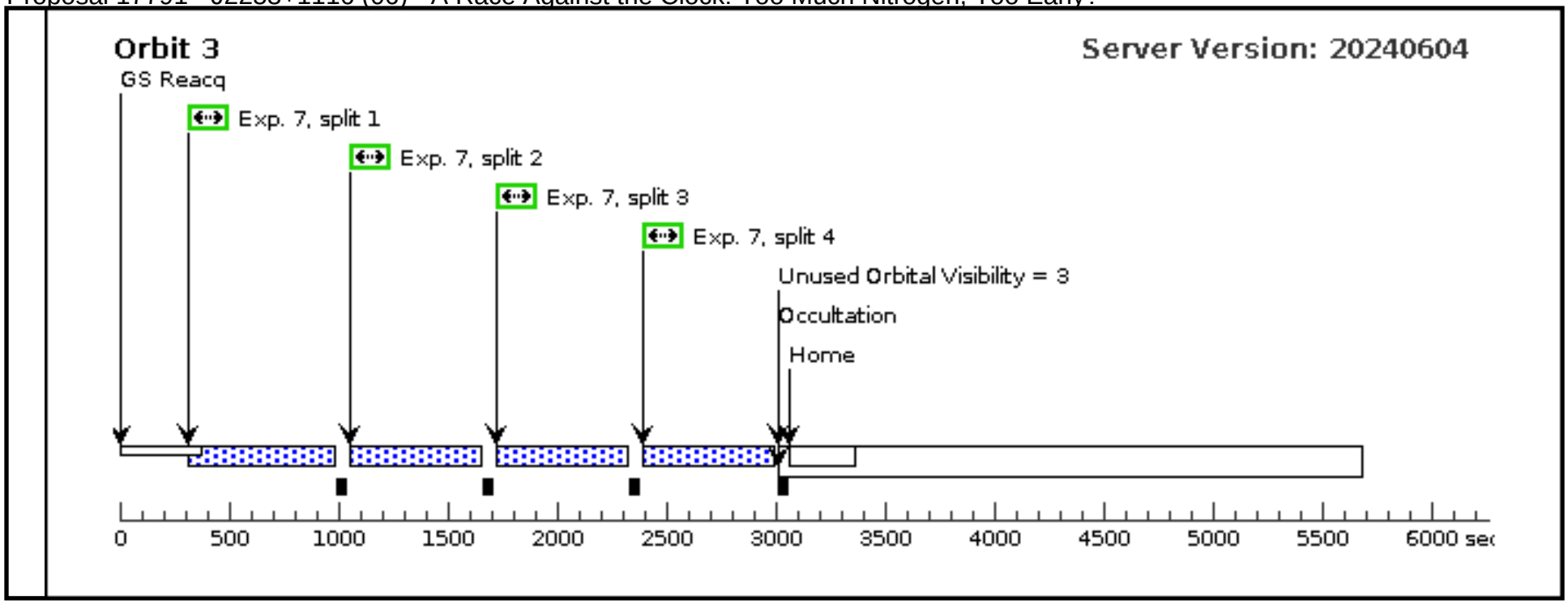
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927248)	(6) J2253+1116	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				68 Secs (68 Secs) *[==>]*	*[1]*
2	(1855323)	(6) J2253+1116	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=1500; FP-POS=2			500 Secs (816 Secs) *[==>816.0 Secs]*	*[1]*
3	(1855323)	(6) J2253+1116	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=1500; FP-POS=3			500 Secs (817 Secs) *[==>817.0 Secs]*	*[1]*
4	(1855323)	(6) J2253+1116	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=1500; FP-POS=4			500 Secs (825 Secs) *[==>825.0 Secs]*	*[2]*
5	(1855323)	(6) J2253+1116	COS/NUV, TIME-TAG, PSA	G185M 1864 A	FP-POS=3; BUFFER-TIME=2183			500 Secs (542 Secs) *[==>542.0 Secs]*	*[2]*
6	(1855323)	(6) J2253+1116	COS/NUV, TIME-TAG, PSA	G185M 1864 A	FP-POS=4; BUFFER-TIME=2183			500 Secs (542 Secs) *[==>542.0 Secs]*	*[2]*
7	(1855323)	(6) J2253+1116	COS/NUV, TIME-TAG, PSA	G185M 1864 A	FP-POS=ALL; BUFFER-TIME=2183			500 Secs (2344 Secs) *[==>586.0 Secs (Split 1)]* *[==>586.0 Secs (Split 2)]* *[==>586.0 Secs (Split 3)]* *[==>586.0 Secs (Split 4)]*	*[3]*

Orbit Structure



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GS Reacq
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Exp. 7, split 2
Exp. 7, split 3
Exp. 7, split 4
Unused Orbital Visibility = 3
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17791, J0834+4343 (10) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: (none)

Diagnostics

(J0834+4343 (10)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

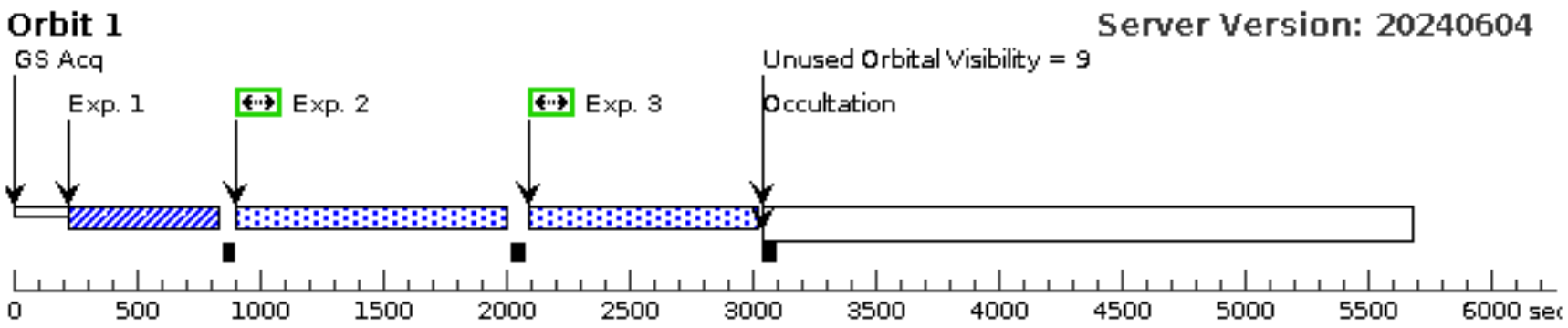
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	J0834+4343	RA: 08 34 46.8020 (128.6950083d) Dec: +43 43 29.85 (43.72496d) Equinox: J2000	Redshift: 0.027	V=19.62 u=20.31	Reference Frame: ICRS

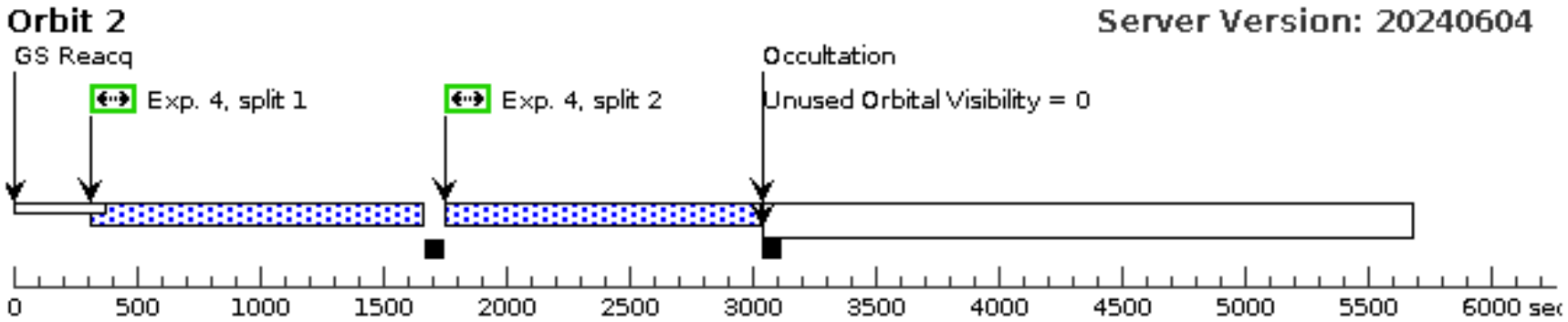
Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

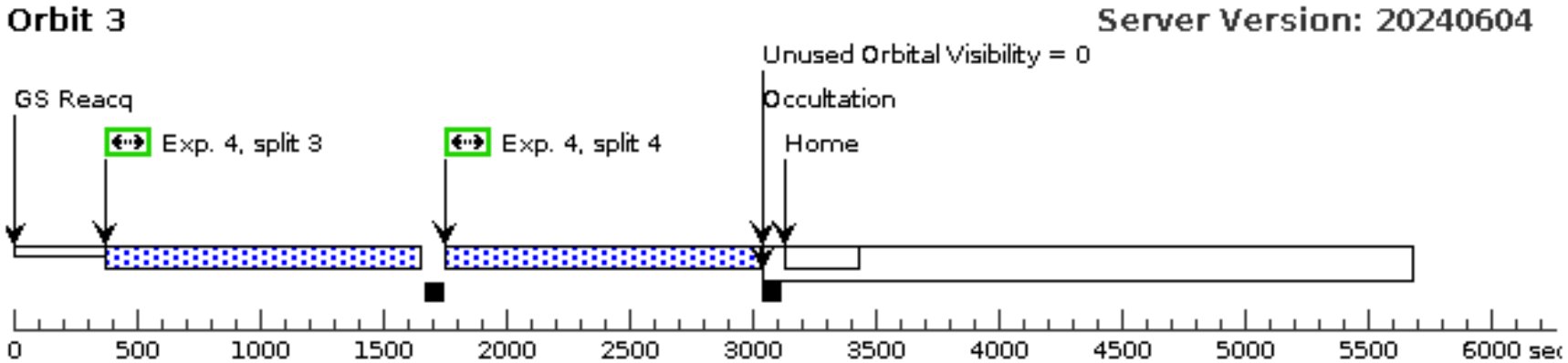
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927254)	(7) J0834+4343	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				200 Secs (200 Secs) *[==>]*	*[1]*
2	(1855323)	(7) J0834+4343	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=3; BUFFER-TIME=2183			500 Secs (915 Secs) *[==>915.0 Secs]*	*[1]*
3	(1855323)	(7) J0834+4343	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=4; BUFFER-TIME=2183			500 Secs (915 Secs) *[==>915.0 Secs]*	*[1]*
4	(1855323)	(7) J0834+4343	COS/NUV, TIME-TAG, PSA	G185M 1900 A	FP-POS=ALL; BUFFER-TIME=2183			500 Secs (5052 Secs) *[==>1263.0 Secs (Split 1)]* *[==>1263.0 Secs (Split 2)]*	*[2]*
								[==>1263.0 Secs (Split 3)] *[==>1263.0 Secs (Split 4)]*	*[3]*

Orbit Structure







Visit

Proposal 17791, J0834+4343 (11) Wed Aug 07 15:01:06 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

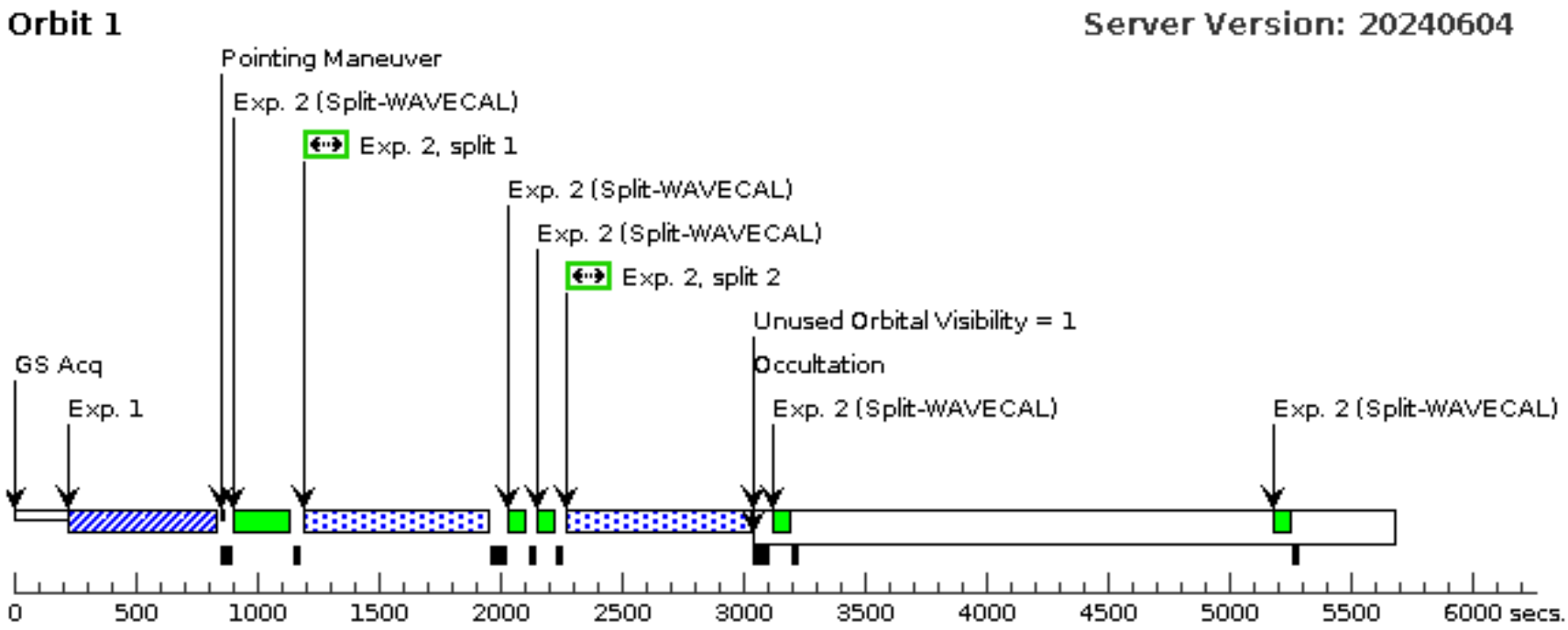
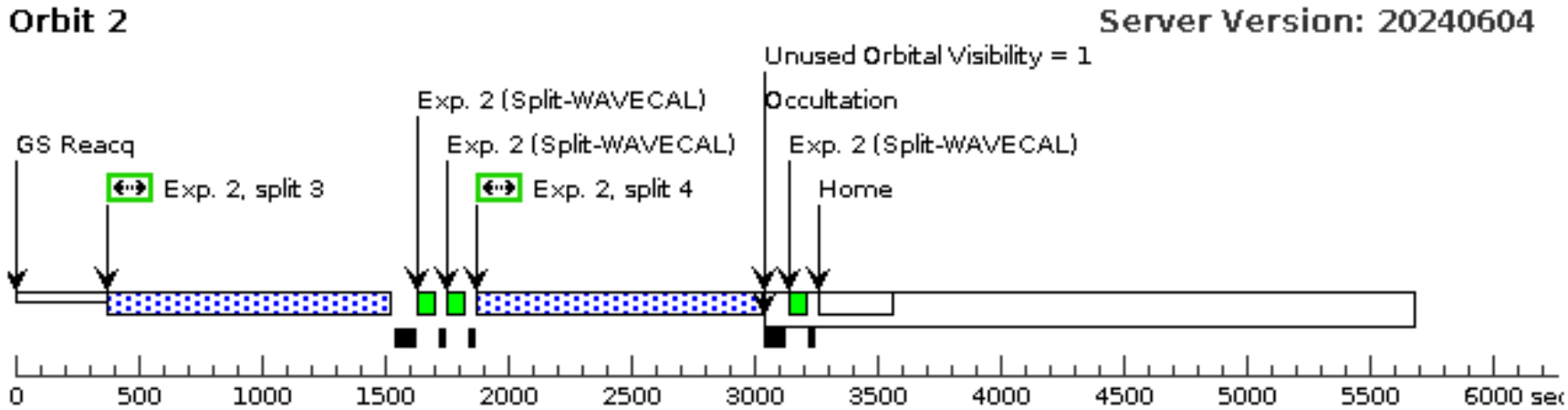
(Exposure 2 (J0834+4343 (11))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	J0834+4343	RA: 08 34 46.8020 (128.6950083d) Dec: +43 43 29.85 (43.72496d) Equinox: J2000	Redshift: 0.027	V=19.62 u=20.31	Reference Frame: ICRS

Comments:
Category=GALAXY
Description=[DWARF COMPACT, EMISSION LINE NEBULA, STAR FORMING REGION]
Extended=YES

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1927254)	(7) J0834+4343	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				200 Secs (200 Secs)	
								[==>]	***[1]***
2	(1855323)	(7) J0834+4343	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=1500; FP-POS=ALL			500 Secs (3622 Secs)	
								[==>707.0 Secs (Split 1)] *[==>706.0 Secs (Split 2)]*	***[1]***
								[==>1104.0 Secs (Split 3)] *[==>1105.0 Secs (Split 4)]*	***[2]***

Orbit Structure