17326 - Cycle 31 COS FUV Spectroscopic Sensitivity Monitor

Cycle: 31, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

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?*
1A	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:36.0	yes
1B	(1) WD0308-565	COS/FUV COS/NUV	2	21-Jun-2024 11:00:38.0	yes
02	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:40.0	yes
3A	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:42.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
3B	(1) WD0308-565	COS/FUV COS/NUV	2	21-Jun-2024 11:00:44.0	yes
04	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:46.0	yes
5A	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:47.0	yes
5B	(1) WD0308-565	COS/FUV COS/NUV	2	21-Jun-2024 11:00:49.0	yes
06	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:51.0	yes
07	(3) WD1057+719 DARK WAVE	COS/FUV S/C	4	21-Jun-2024 11:00:53.0	yes
8A	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:55.0	yes
8B	(1) WD0308-565	COS/FUV COS/NUV	2	21-Jun-2024 11:00:57.0	yes
9A	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	21-Jun-2024 11:00:58.0	yes
9B	(3) WD1057+719 DARK WAVE	COS/FUV COS/NUV S/C	3	21-Jun-2024 11:01:01.0	yes

31 Total Orbits Used

ABSTRACT

The FUV gratings are the most used modes on COS. They have experienced changes in sensitivity since the instrument was installed. The trends in the time-dependent spectroscopic sensitivity depend on the grating, segment and wavelength. This calibration proposal is to monitor the sensitivity of each FUV grating mode at several cenwave settings on an approximately bi-monthly schedule, and to characterize the observed trends.

OBSERVING DESCRIPTION

As part of the standard monitoring sequence the standard stars, WD0308-565 and GD71, will be observed every two months (except for May-July, during which time GD71 is unavailable).

Each sequence consists of 6 orbits: a 2 orbit visit (target WD0308-565) that covers
G130M/1055,
G130M/1222,
G130M/1291,
G130M/1327/FUVA,
G140L/800/FUVA,
G140L/1105/FUVA,
G140L/1280,

a 2 orbit visit (target WD0308-565) that covers
G160M/1533/FUVB
G160M/1577/FUVB,
G160M/1611/FUVB,
G160M/1623/FUVB,

and a 2 orbit visit (target GD71) that covers
G130M/1096/FUVB,
G160M/1533/FUVA,
G160M/1577/FUVA,

G160M/1611/FUVA,
G160M/1623/FUVA.

These comprise the shortest and longest central wavelengths of the normal modes with each grating. Additionally, G130M/1055, and 1096 (the blue modes) and G130M/1291 are included. Also included is G160M/1577, which used to be the shortest cenwave before the introduction of G160M/1533 in Cycle 26. The G130M 1291 and 1327 observations will be done at LP5, G140L observations will be done at LP3, G130M/1222 observations will be done at LP4, G160M observations will be done at LP6, and G130M/1055 and G130M/1096 will be done at LP2.

In Cycle 30, LP4-LP6 connection exposures for G160M/1533, 1577, 1611 and 1623 were added to check sensitivity changes between LPs, two G160M cenwaves per visit.

G160M/1611 was added in Cycle 29 in order to monitor this highly used but untracked cenwave, and to investigate the detector position vs wavelength dependence of the TDS.

SNR requirements:
- The general requirement is for an SNR of 15 per resel at the wavelength of least sensitivity for the standard modes, and SNR of 15 per resel beyond some minimum wavelength for the blue modes and c1222. The G140L/800 and 1280 modes have slightly different criteria, to provide SNR of >~5 per resel at wavelengths below ~1080 Ang.
- The aim is to obtain TDS calibration better than 2% for standard modes and 5% for blue modes.

ETC calculations:
- The ETC calculations use CALSPEC standard model versions wd0308_565_mod_006.fits and gd71_mod_011.fits against which the TDS model slopes are referenced.
- The ETC calculations are specified by requiring SNR of 15 at specific wavelengths, except for the following:
G140L/800 SNR of 6 per resel at 1045 Ang (only FUVA is used)
G140L/1280 SNR of 12 per resel at 1090 Ang (lies on FUVB)

- For the blue modes and c1222, the wavelengths specified for SNR of 15 are:
990 Ang for c1096 (Only FUVB is used)

1120 Ang for c1055 (lies on FUVA)
1130 Ang for c1222 (lies on FUVB)

Time constraints:
- Complete monitoring sequence should occur every 2 months starting in December 2023.
- GD71 is unschedulable May-July, and therefore that sequence will consist of only one visit.

The exposure times and organization of visits follows the scheme used in Cycle 30, with the exception of the exposure times for cenwaves 1291, 1533/FUVA, 1577/FUVA, 1611/FUVA and 1623/FUVA, which have been updated to reflect the most recent exposure times following updates to the FLUXTAB. As in Cycle 28, for all but four sets of the WD0308-565 observations using G160M, the specifications now are SEGMENT=B (i.e. segment A is turned off). One exception is the June sequence (visit 7A, 7B) for which the specifications are SEGMENT=BOTH for these modes, because GD71 is not available during this period. Additionally three other exceptions exist in Cycle 30 to support a Cycle 30 CO program which requires monitoring of G160M/1533 and 1577 at both LP6 and LP4 using both segements, such monitoring continued in Cycle 31.

In Cycle 29, an additional NUV ACQ/IMAGE was added at the beginning of the second orbit of the 2 orbit WD0308-565 visits to protect against guide star reaquisition failures, which this particular target is prone to.

In Cycle 30, the WD0308-565 visit was split into 2x2 orbits to ease scheduling, avoiding 4 orbit visits.

In Cycle 31, the NUV MAMA underwent an anomolous shutdown in late May 2024 due to a program exceeding the global count rate limit and then in June 2024 HST went into reduced gyro mode. Because of reduced gyro mode, the target GD71 is no longer available until late August and must be switched out with WD1057+719. Due to the several shutdowns and failed GS acqusitions, G160M lacked data for 3 months and will continue to lack data until August. In order to obtain FUV TDS data and the fact the NUV MAMA is still shut down, the NUV ACQ/IMG has been replaced with FUV ACQ/SEARCH, ACQ/PEAKXD, and ACQ/PEAKD for this June 2024 observation. The 07 visit will consist of G160M observations of both stripes and G130M/1096 FUVB. All SNR except G130M/1096/FUVB meet the 15 resel requirement. G130M/1096/FUVB will meet the SNR 7 resel at 1030A, as dictated in the TIR 2018-1.

In Cycle 31 in June, G160M/1611 was removed.

In Cycle 31 in June, HST went into reduced gyro mode (RGM). Due to this, GD71 will be replaced with WD1057+719. As this new target is dimmer, WD1057+719 can observe all the G160M observations with both segments. WD1057+719 is unscheduable in July-August so the contingicy visit in July will continue to be observed with WD308-565. All ETC calculations have been updated for the G160M and G130M/1096/FUVB observations for this new target. The remaining sequences occur as following: a 2 orbit visit (target WD0308-565) that covers
G130M/1055,
G130M/1222,
G130M/1291,
G130M/1327/FUVA,
G140L/800/FUVA,
G140L/1105/FUVA,
G140L/1280,

a 3 orbit visit (target WD1057+719) that covers
G130M/1096/FUVB,
G160M/1533,
G160M/1577,
G160M/1623.

The 3 orbit visit covers both LP4 and LP6 of G160M.

All SNR requirements remain the same except for G130M/1096/FUVB, where the same is ~7 SNR at 1030A. The quality of the data will be comparable.

Visit

Proposal 17326, WD0308-DEC (1A), completed Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 12-DEC-2023:00:00:00 AND 24-DEC-2023:00:00:00

Diagnostics

(WD0308-DEC (1A)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

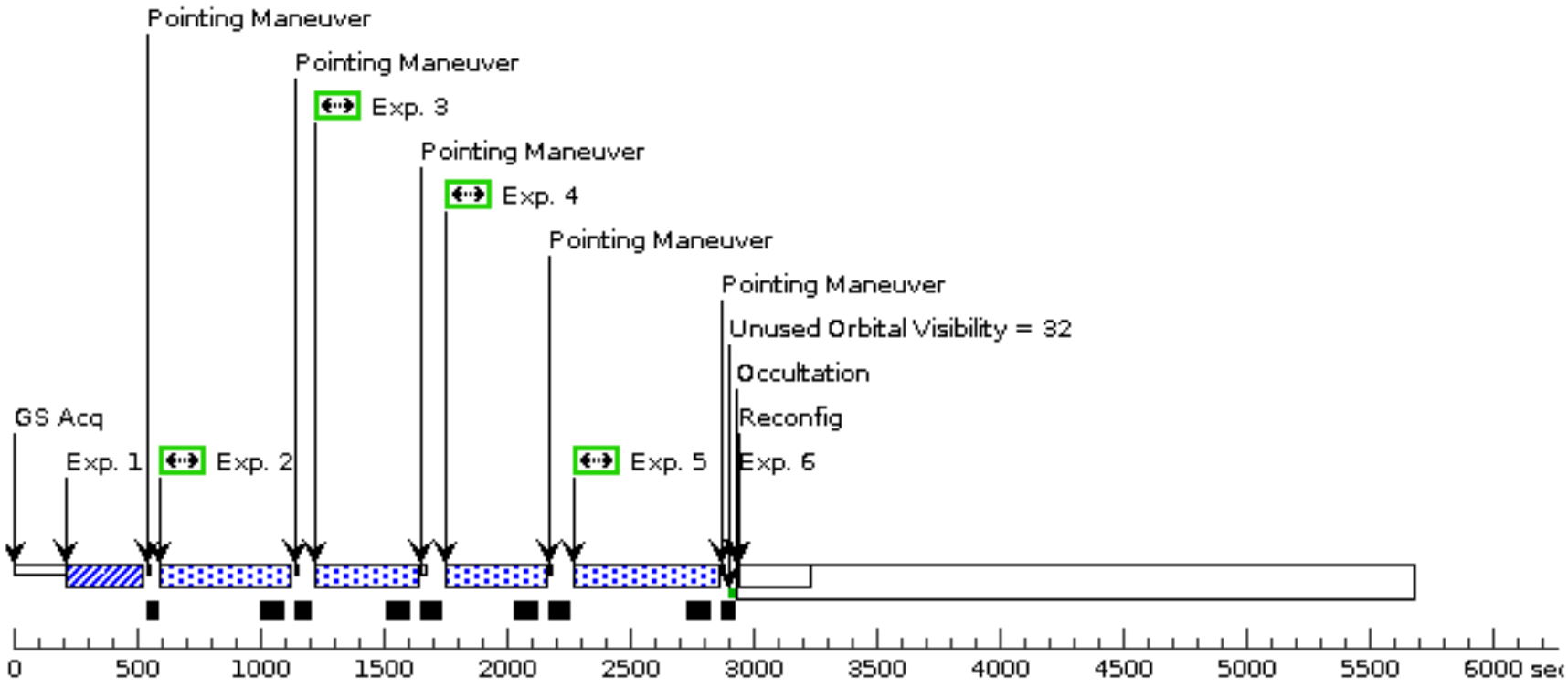
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

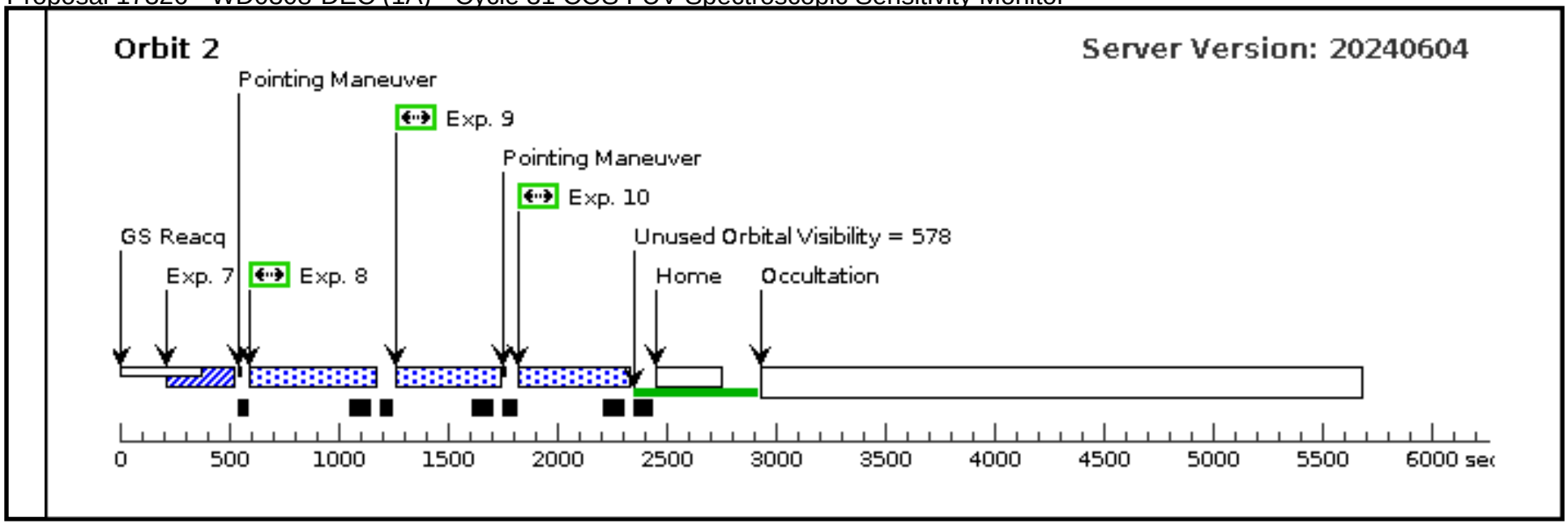
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	 ***[1]***
Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*									
2	G130M/1055/LP2 (COS.sp.1540024)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=208; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			318 Secs (318 Secs) *[==>]*	 ***[1]***
Comments: Cycle 29 comment: exposure time updated following blue modes TDS and FLUXTAB update. *ETC buffer time is 1377 sec* *Set buffer time = exptime - 110 sec*									
3	G130M/1222/LP4 (COS.sp.1457646)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=157; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			267 Secs (267 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 392 sec. *Set buffer time = exptime - 110 sec*									
4	G130M/1291/LP5 (COS.sp.1865092)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=149; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=BOTH			259 Secs (259 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 344 sec. *Set buffer time = exptime - 110 sec*									
5	G140L/1280/LP3 (COS.sp.1820354)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=261; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			371 Secs (371 Secs) *[==>]*	 ***[1]***
Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *ETC buffer time is 520 sec.* *Set buffer time = exptime - 110 sec*									
6		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	 ***[1]***
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.									
7	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	 ***[2]***
Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*									

	8	G140L/800/FUVA/LP3 (COS.sp.1457778)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=257; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	367 Secs (367 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 350 sec. *Set buffer time = exptime - 110 sec*						
	9	G140L/1105/FUVA/LP3 (COS.sp.1457846)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=222; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	332 Secs (332 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 358 sec. *Set buffer time = exptime - 110 sec*						
	10	G130M/1327/FUVA/LP5 (COS.sp.1457657)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=164; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=A	274 Secs (274 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 324 sec. *set buffer time = exptime - 110 sec*						

Orbit Structure

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Pointing Maneuver
Exp. 10
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Unused Orbital Visibility = 578
Exp. 7
Exp. 8
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Proposal 17326 - WD0308-DEC (1B) - Cycle 31 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 17326, WD0308-DEC (1B), completed Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 12-DEC-2023:00:00:00 AND 24-DEC-2023:00:00:00

Comments: All G160M observations are with SEGMENT = BOTH. Using "SEGMENT=BOTH" instead of "SEGMENT=B" for both LP4 and LP6 observations for the G160M settings to support a Cycle 30 GO program which needs both segments monitored at LP4 and LP6. (FUVA is also observed for G160M using GD71 in visit 02).

1533 & 1577 LP4. Split over visits 1B and 1C due to scheduling constraints.

Diagnostics

(WD0308-DEC (1B)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

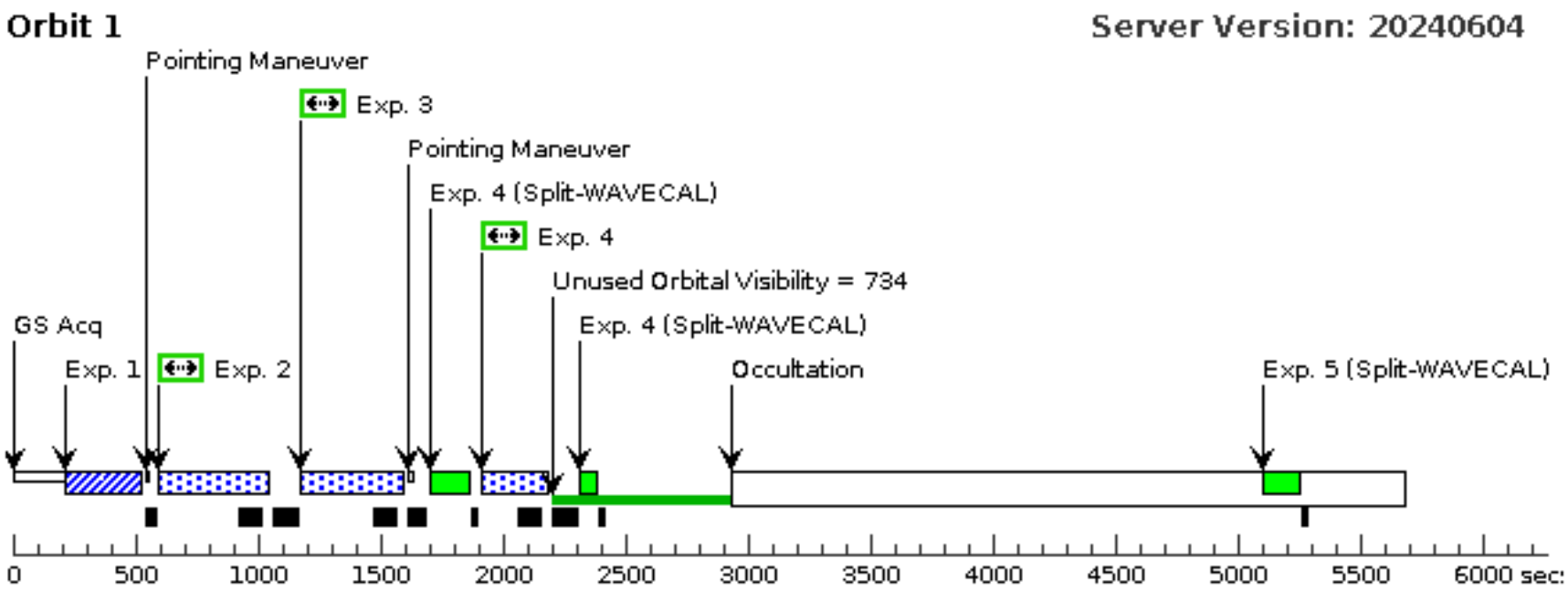
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

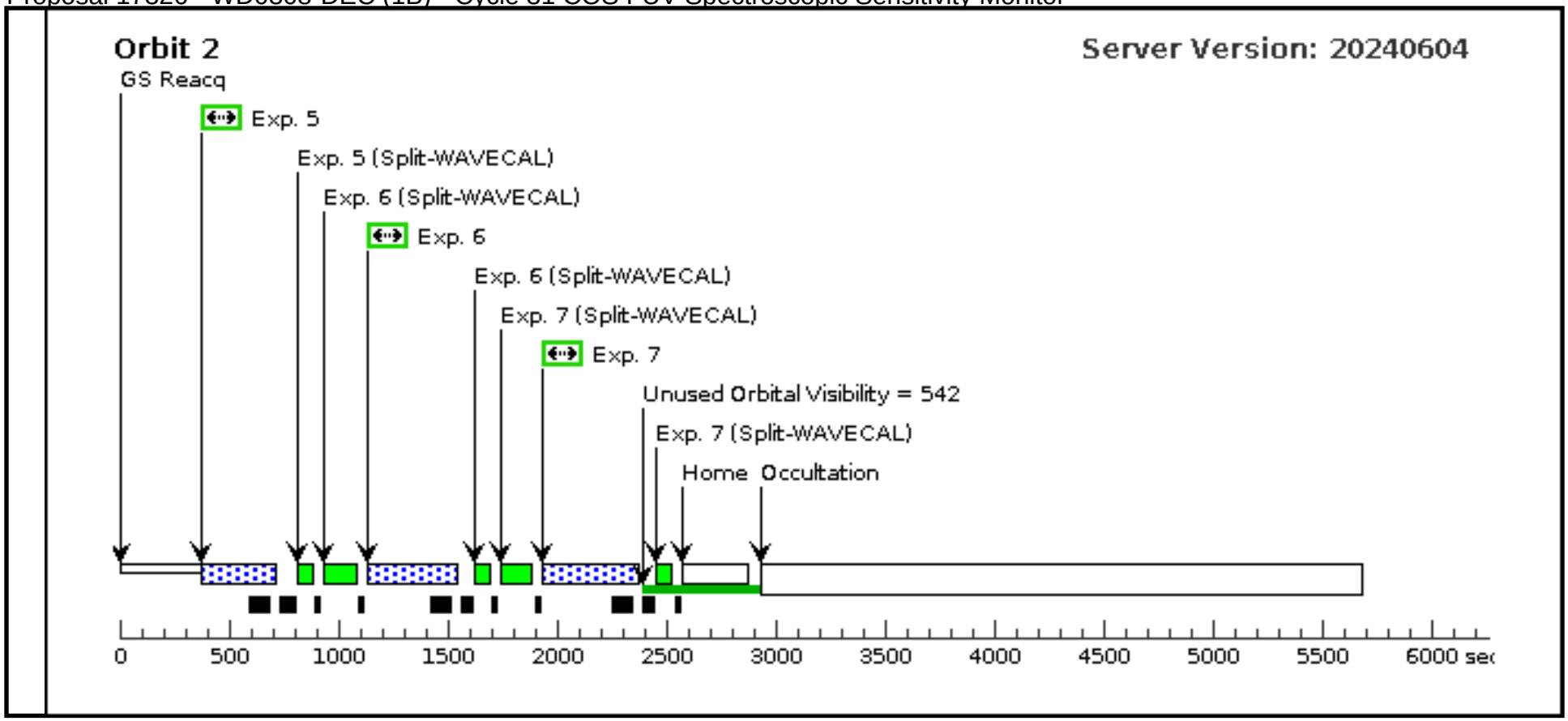
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[1]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.								
2	G160M/1533/BOTH/LP4 (COS.sp.1457649)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=113; LIFETIME-POS=LP4; SEGMENT=BOTH			223 Secs (223 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec.								
3	G160M/1577/BOTH/LP4 (COS.sp.1540036)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=181; LIFETIME-POS=LP4; SEGMENT=BOTH			291 Secs (291 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 sec								
4	G160M/1533/BOTH/LP6 (COS.sp.1457649)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=113; LIFETIME-POS=LP6; SEGMENT=BOTH			223 Secs (223 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec.								
5	G160M/1577/BOTH/LP6 (COS.sp.1540036)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=181; LIFETIME-POS=LP6; SEGMENT=BOTH			291 Secs (291 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 sec								
6	G160M/1611/BOTH/LP6 (COS.sp.1540046)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1611 A	FP-POS=3; BUFFER-TIME=250; LIFETIME-POS=LP6; SEGMENT=BOTH			360 Secs (360 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 755 sec. Set buffer time = exptime - 110 sec								

	7	G160M/1623/BOTH/LP 6 (COS.sp.1540050)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=278; LIFETIME-POS=LP6; SEGMENT=BOTH	388 Secs (388 Secs) *[==>]*	***[2]***
	Comments: ETC buffer time is 814 sec. *Set buffer time = exptime - 110 sec*							

Orbit Structure

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Exp. 7 (Split-WAVECAL)
Exp. 7
Unused Orbital Visibility = 542
Exp. 7 (Split-WAVECAL)
Home Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
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Visit

Proposal 17326, GD71-DEC (02), completed Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 12-DEC-2023:00:00:00 AND 24-DEC-2023:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
All G160M observations are with SEGMENT = A (i.e. segment B is turned off).

1533 & 1577 LP4

Diagnostics

(GD71-DEC (02)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6200 (88.1150833d)	Proper Motion RA: 76.841 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.23 (15.88701d)	Proper Motion Dec: -172.944 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

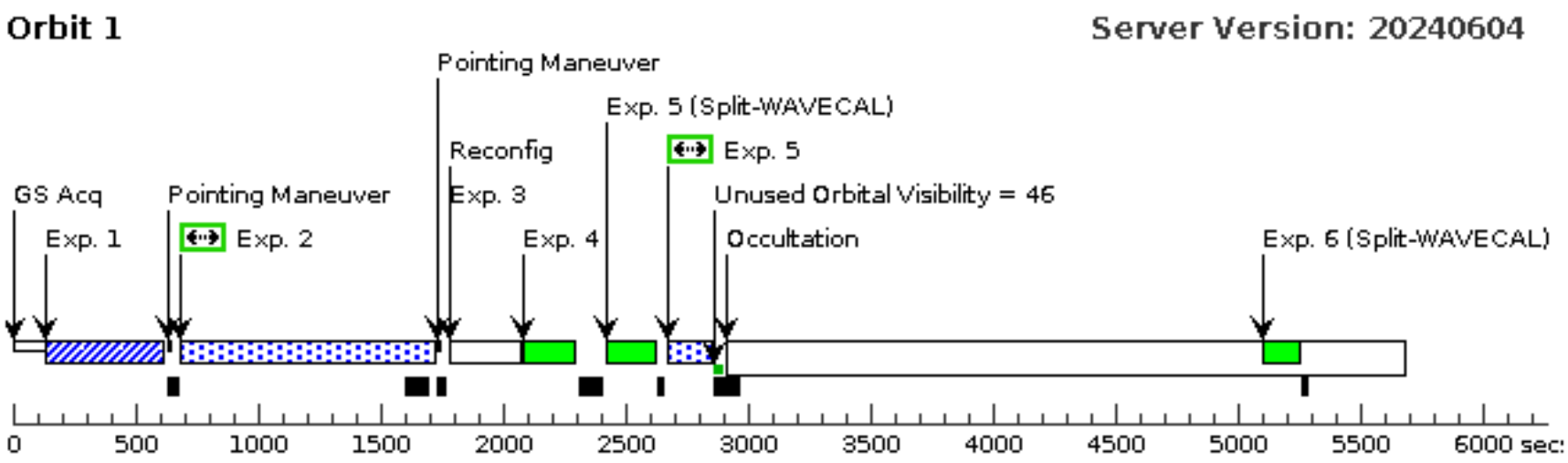
Comments: Co-ordinates and proper motions updated with values from SIMBAD, which uses the GAIA DR2 catalog.
Differences from previous co-ordinates are in decimal places in seconds of time and arcsec, within the stated errors.
Category=STAR
Description=[DA]
Extended=NO

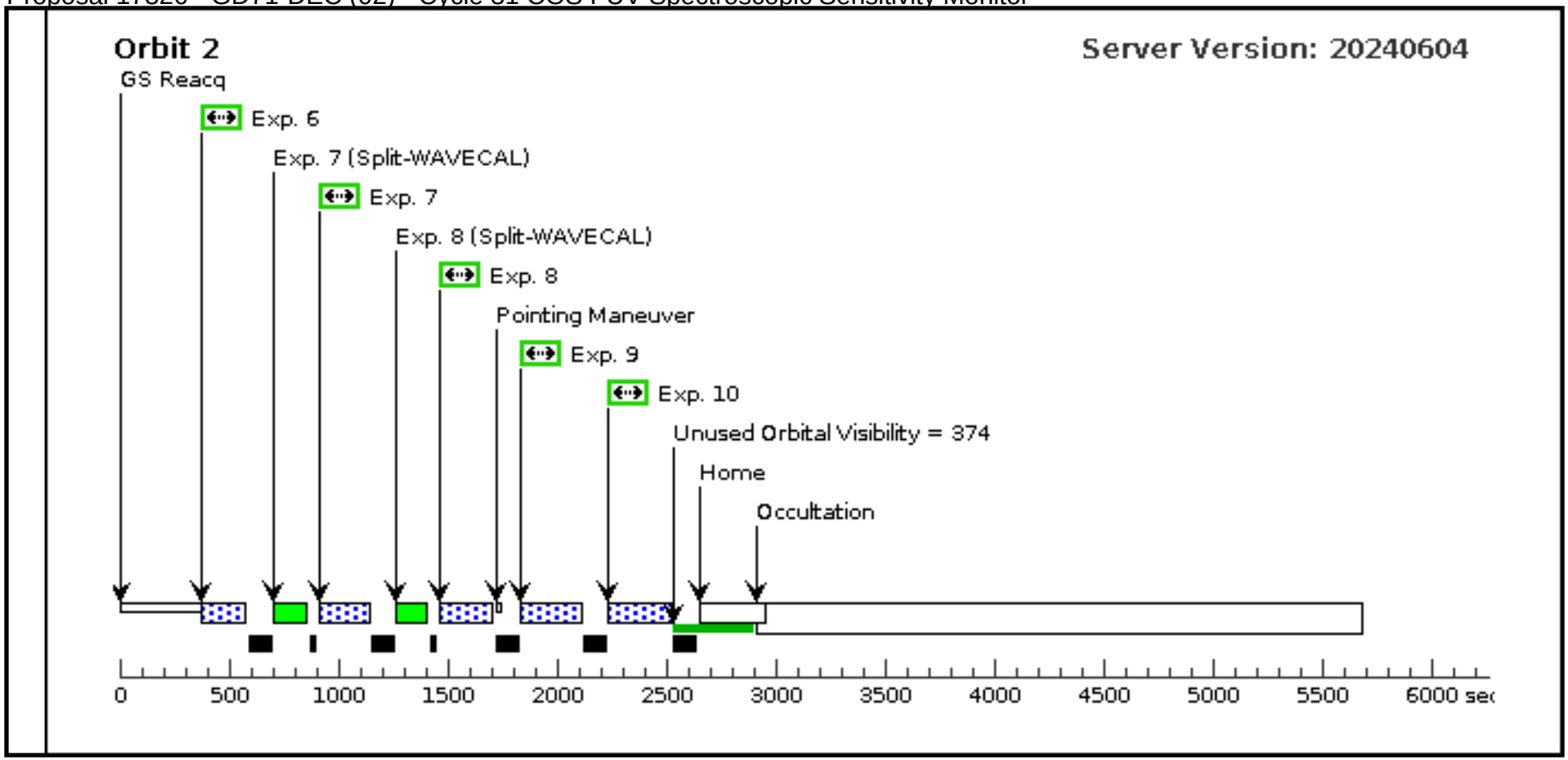
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: Exptime for S/N of 60 is 105.5 sec, using 90 sec leads to S/N of 55. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*									
2	G130M/1096/FUVB/LP2 (COS.sp.1820351)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=719; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			829 Secs (829 Secs) *[==>]*	***[1]***
Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *FUVB only (all ETC warnings come from FUVA).* *The FUVB count rate is 549 cts/sec, so the buffer time is 2.35E6/566 = 4280 sec.* *Set buffer-time = exptime - 110 sec*									
3		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	***[1]***
Comments: Work-around to efficiently schedule the SEG-B to SEG-A reconfiguration. Eliminates SPSS induced gaps.									
4	G130M/1096/FUVA WAVECAL/LP2	WAVE	COS/FUV, TIME-TAG, WCA	G130M 1096 A	FP-POS=3; SEGMENT=A; FLASH=NO; LIFETIME-POS=LP2			160 Secs (160 Secs) *[==>]*	***[1]***
Comments: Cycle 28: the exposure time has been updated to 160 seconds. This was determined after characterizing the decrease by about 12 percent in the summed count-rate with time over the period between December 2017 and April 2020.									
5	G160M/1533/FUVA/LP6 (COS.sp.1865093)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=125; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6			125 Secs (125 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 8265 cts/sec, so the buffer time is 2.35E6/8265 = 284 sec.* *Set buffer-time = exptime*									
6	G160M/1577/FUVA/LP6 (COS.sp.1865094)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=154; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6			154 Secs (154 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 5794 cts/sec, so the buffer time is 2.35E6/5794 = 406 sec.* *Set buffer-time = exptime*									

	7	G160M/1611/FUVA/LP6 (COS.sp.1865095)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=178; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6	178 Secs (178 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4685 cts/sec, so the buffer time is 2.35E6/4685 = 502 sec.* *Set buffer-time = exptime*						
	8	G160M/1623/FUVA/LP6 (COS.sp.1865082)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=192; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6	192 Secs (192 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4294 cts/sec, so the buffer time is 2.35E6/4294 = 547 sec.* *Set buffer-time = exptime*						
	9	G160M/1533/FUVA/LP4 (COS.sp.1865093)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=125; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	125 Secs (125 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 8265 cts/sec, so the buffer time is 2.35E6/8265 = 284 sec.* *Set buffer-time = exptime*						
	10	G160M/1577/FUVA/LP4 (COS.sp.1865094)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=154; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	154 Secs (154 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 5794 cts/sec, so the buffer time is 2.35E6/5794 = 406 sec.* *Set buffer-time = exptime*						

Orbit Structure




Orbit 2
Server Version: 20240604
GS Reacq
Exp. 6
Exp. 7 (Split-WAVECAL)
Exp. 7
Exp. 8 (Split-WAVECAL)
Exp. 8
Pointing Maneuver
Exp. 9
Exp. 10
Unused Orbital Visibility = 374
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17326, WD0308-FEB (3A), completed Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 03-FEB-2024:00:00:00 AND 24-FEB-2024:00:00:00

Diagnostics

(WD0308-FEB (3A)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

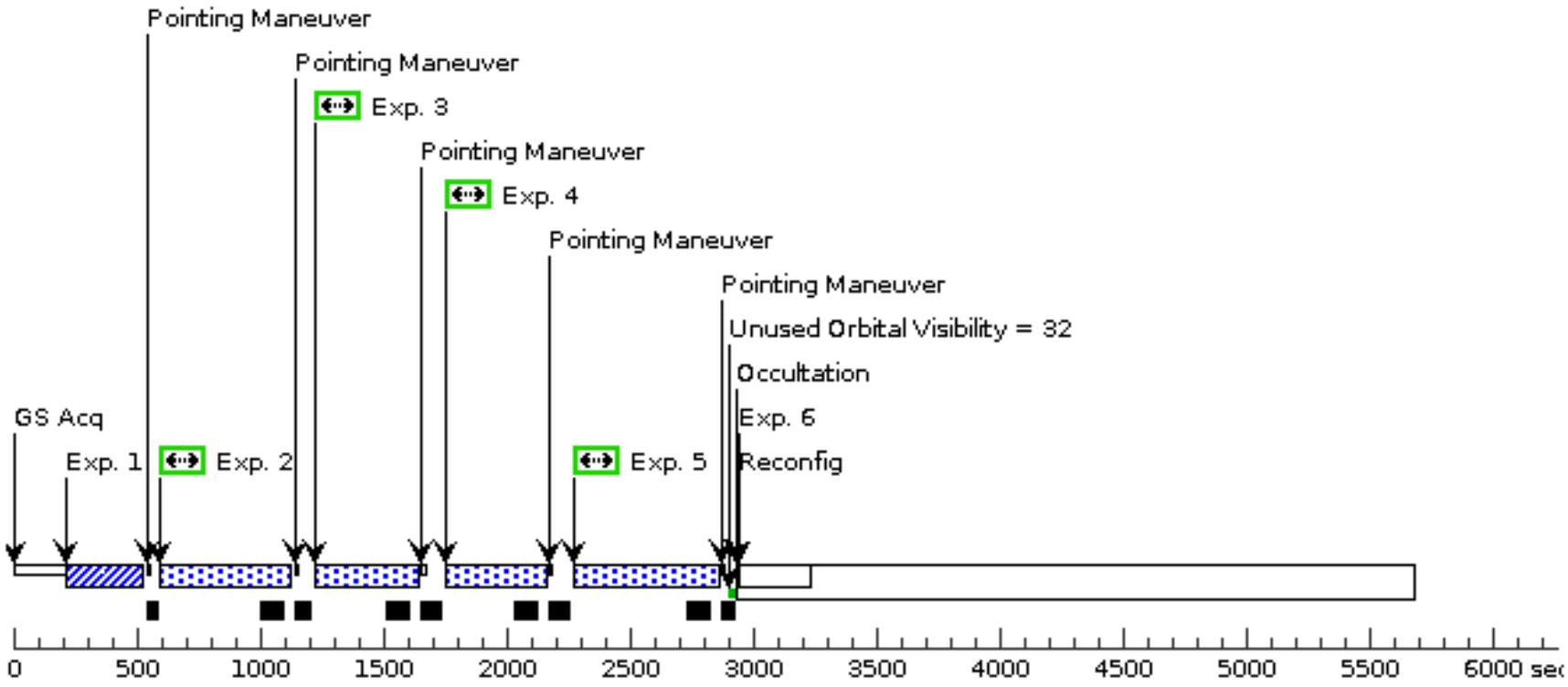
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

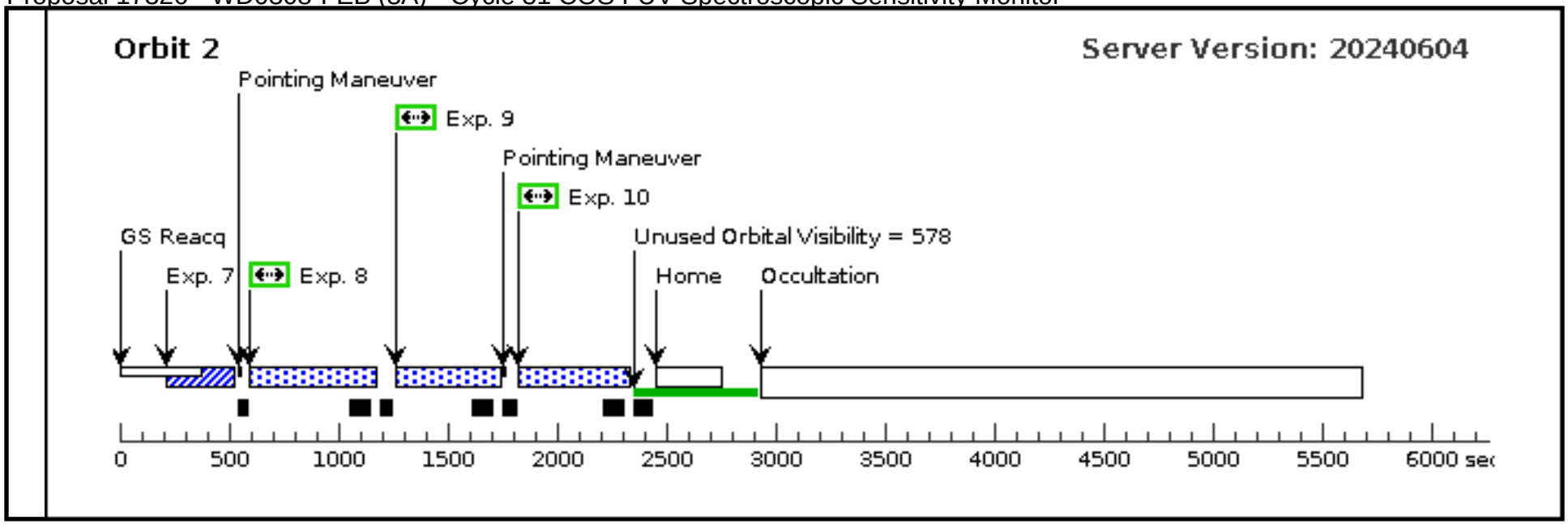
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[1]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*								
2	G130M/1055/LP2 (COS.sp.1540024)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=208; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			318 Secs (318 Secs) *[==>]*	*[1]*
	Comments: Cycle 29 comment: exposure time updated following blue modes TDS and FLUXTAB update. *ETC buffer time is 1377 sec* *Set buffer time = exptime - 110 sec*								
3	G130M/1222/LP4 (COS.sp.1457646)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=157; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			267 Secs (267 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 392 sec. *Set buffer time = exptime - 110 sec*								
4	G130M/1291/LP5 (COS.sp.1865092)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=149; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=BOTH			259 Secs (259 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 344 sec. *Set buffer time = exptime - 110 sec*								
5	G140L/1280/LP3 (COS.sp.1820354)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=261; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			371 Secs (371 Secs) *[==>]*	*[1]*
	Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *ETC buffer time is 520 sec.* *Set buffer time = exptime - 110 sec*								
6		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	*[1]*
	Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.								
7	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[2]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*								

	8	G140L/800/FUVA/LP3 (COS.sp.1457778)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=257; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	367 Secs (367 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 350 sec. *Set buffer time = exptime - 110 sec*						
	9	G140L/1105/FUVA/LP3 (COS.sp.1457846)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=222; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	332 Secs (332 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 358 sec. *Set buffer time = exptime - 110 sec*						
	10	G130M/1327/FUVA/LP5 (COS.sp.1457657)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=164; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=A	274 Secs (274 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 324 sec. *set buffer time = exptime - 110 sec*						

Orbit Structure




Orbit 2
Server Version: 20240604
Pointing Maneuver
Exp. 9
Pointing Maneuver
Exp. 10
GS Reacq
Unused Orbital Visibility = 578
Exp. 7
Exp. 8
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17326, WD0308-FEB (3B), completed Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 03-FEB-2024:00:00:00 AND 24-FEB-2024:00:00:00

Comments: All G160M observations are with SEGMENT = B (i.e. segment A is turned off).

1611 & 1623 LP4

Diagnostics

(WD0308-FEB (3B)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

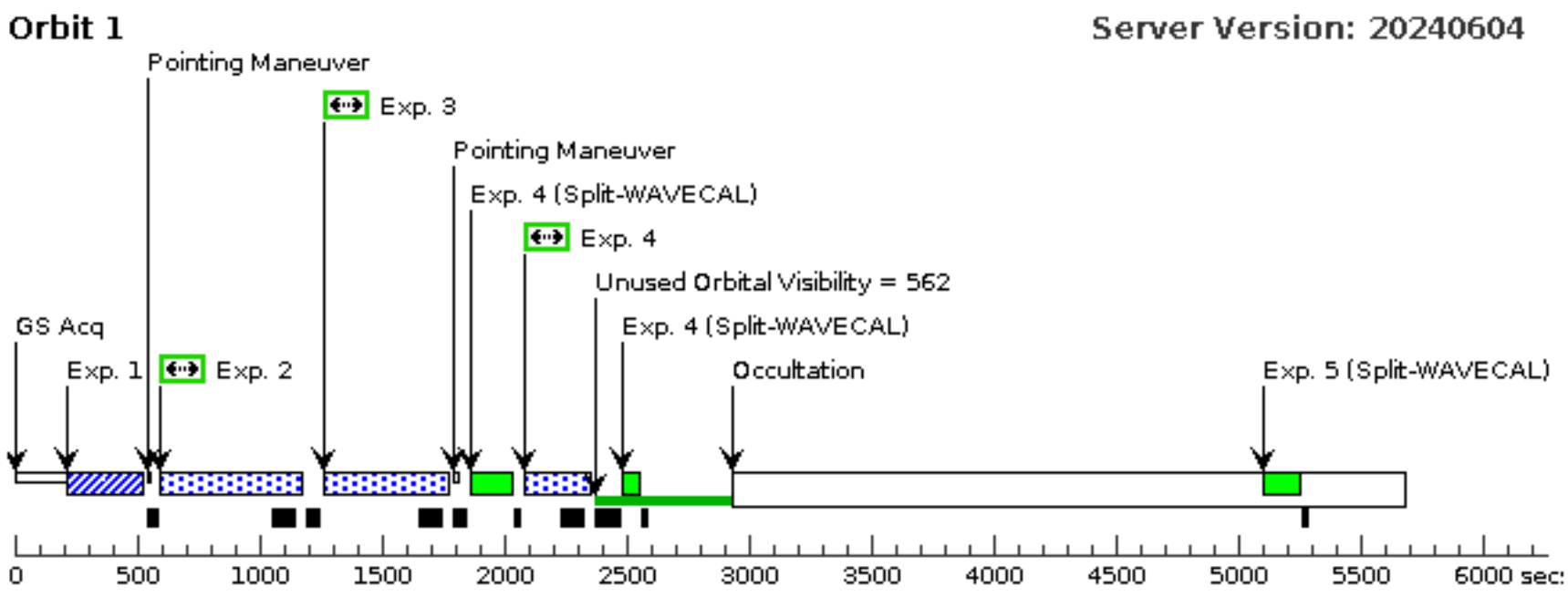
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

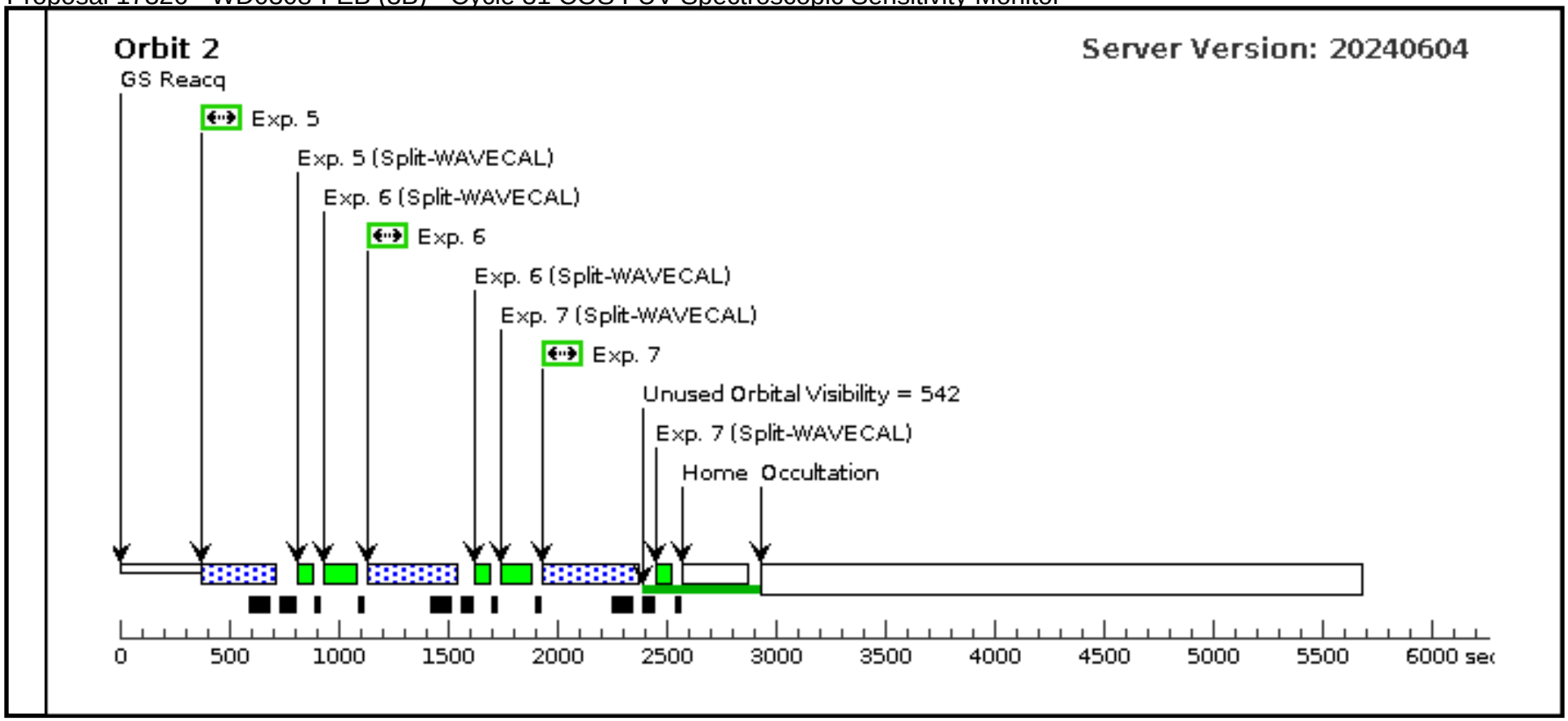
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[1]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*								
2	G160M/1611/B/LP4 (COS.sp.1540046)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1611 A	FP-POS=3; BUFFER-TIME=2500; LIFETIME-POS=LP4; SEGMENT=B			360 Secs (360 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 755 sec. *Set buffer time = exptime - 110 sec*								
3	G160M/1623/B/LP4 (COS.sp.1540050)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2778; LIFETIME-POS=LP4; SEGMENT=B			388 Secs (388 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 814 sec. *Set buffer time = exptime - 110 sec*								
4	G160M/1533/B/LP6 (COS.sp.1457649)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=1133; LIFETIME-POS=LP6; SEGMENT=B			223 Secs (223 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 502 sec. *Set buffer time = exptime - 110 sec.*								
5	G160M/1577/B/LP6 (COS.sp.1540036)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=1811; LIFETIME-POS=LP6; SEGMENT=B			291 Secs (291 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 644 sec. *Set buffer time = exptime - 110 sec*								
6	G160M/1611/B/LP6 (COS.sp.1540046)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1611 A	FP-POS=3; BUFFER-TIME=2500; LIFETIME-POS=LP6; SEGMENT=B			360 Secs (360 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 755 sec. *Set buffer time = exptime - 110 sec*								

	7	G160M/1623/B/LP6 (COS.sp.1540050)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=278; LIFETIME-POS=LP6; SEGMENT=B	388 Secs (388 Secs) *[==>]*	***[2]***
	Comments: ETC buffer time is 814 sec. Set buffer time = exptime - 110 sec							

Orbit Structure




Orbit 2
Server Version: 20240604
GS Reacq
Exp. 5
Exp. 5 (Split-WAVECAL)
Exp. 6 (Split-WAVECAL)
Exp. 6
Exp. 6 (Split-WAVECAL)
Exp. 7 (Split-WAVECAL)
Exp. 7
Unused Orbital Visibility = 542
Exp. 7 (Split-WAVECAL)
Home Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17326, GD71-FEB (04), completed Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 10-FEB-2024:00:00:00 AND 24-FEB-2024:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
All G160M observations are with SEGMENT = A (i.e. segment B is turned off).

1611 & 1623 LP4

Diagnostics

(GD71-FEB (04)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6200 (88.1150833d)	Proper Motion RA: 76.841 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.23 (15.88701d)	Proper Motion Dec: -172.944 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

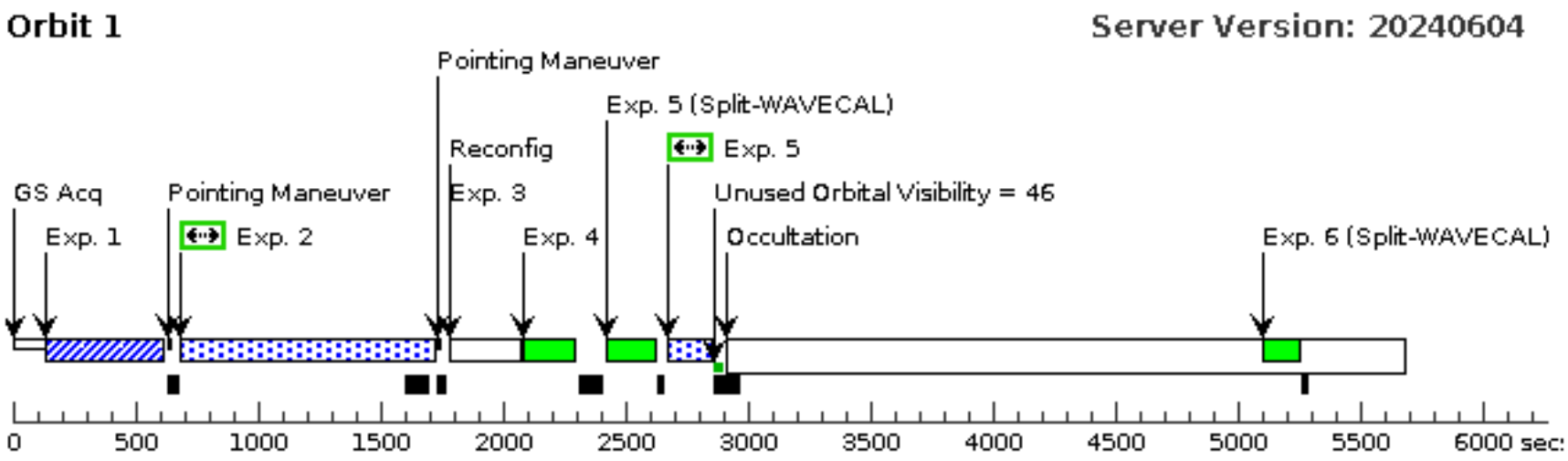
Comments: Co-ordinates and proper motions updated with values from SIMBAD, which uses the GAIA DR2 catalog.
Differences from previous co-ordinates are in decimal places in seconds of time and arcsec, within the stated errors.
Category=STAR
Description=[DA]
Extended=NO

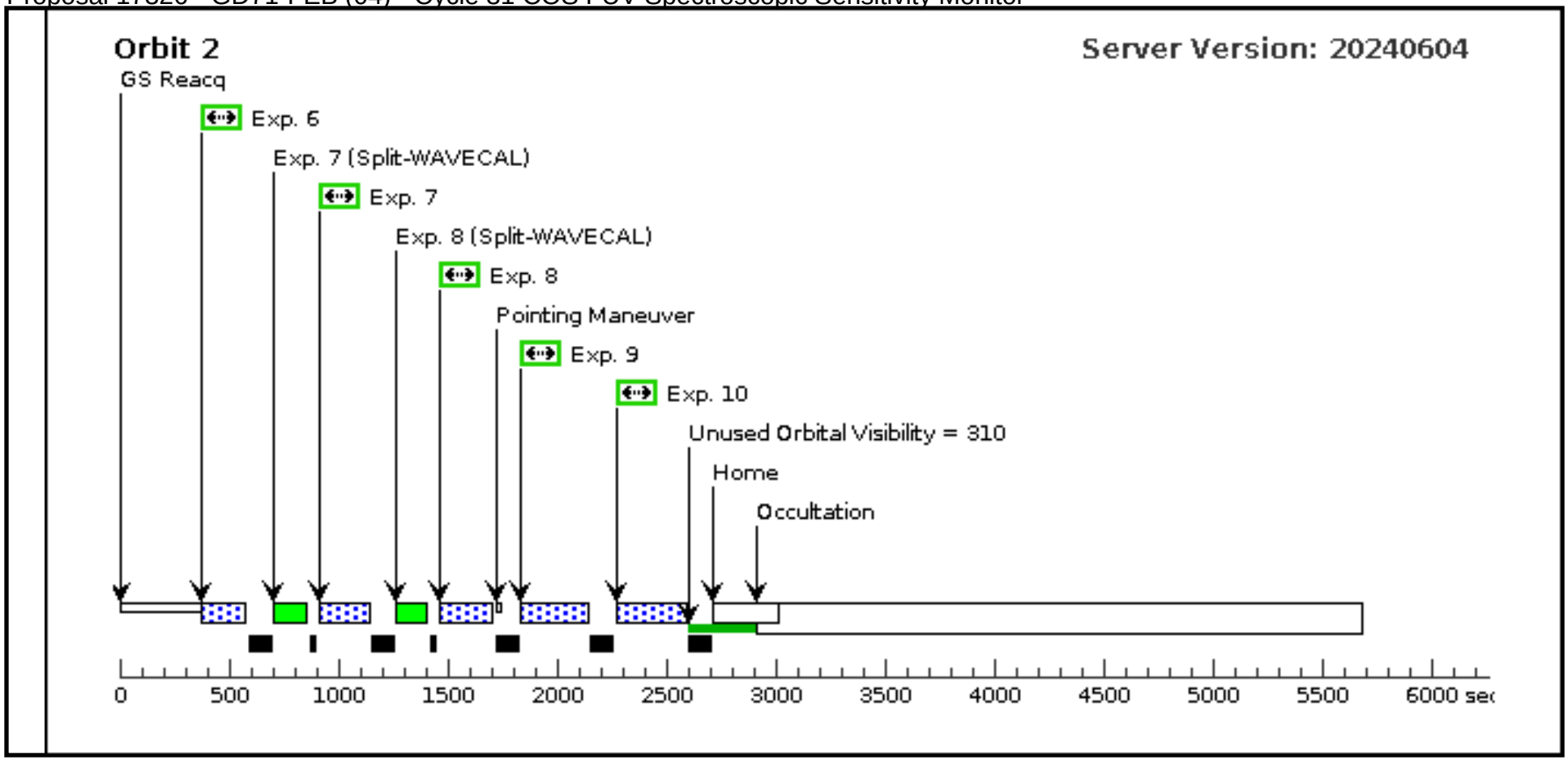
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: See Visit 02 comments.									
2	G130M/1096/FUVB/LP2 (COS.sp.1820351)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=719; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			829 Secs (829 Secs) *[==>]*	***[1]***
Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *FUVB only (all ETC warnings come from FUVA).* *The FUVB count rate is 549 cts/sec, so the buffer time is 2.35E6/566 = 4280 sec.* *Set buffer-time = exptime - 110 sec*									
3		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	***[1]***
Comments: Work-around to efficiently schedule the SEG-B to SEG-A reconfiguration. Eliminates SPSS induced gaps.									
4	G130M/1096/FUVA WAVECAL/LP2	WAVE	COS/FUV, TIME-TAG, WCA	G130M 1096 A	FP-POS=3; SEGMENT=A; FLASH=NO; LIFETIME-POS=LP2			160 Secs (160 Secs) *[==>]*	***[1]***
Comments: See Visit 02 comments.									
5	G160M/1533/FUVA/LP6 (COS.sp.1865093)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=125; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6			125 Secs (125 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 8265 cts/sec, so the buffer time is 2.35E6/8265 = 284 sec.* *Set buffer-time = exptime*									
6	G160M/1577/FUVA/LP6 (COS.sp.1865094)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=154; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6			154 Secs (154 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 5794 cts/sec, so the buffer time is 2.35E6/5794 = 406 sec.* *Set buffer-time = exptime*									

	7	G160M/1611/FUVA/LP6 (COS.sp.1865095)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=178; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6	178 Secs (178 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4685 cts/sec, so the buffer time is 2.35E6/4685 = 502 sec.* *Set buffer-time = exptime*						
	8	G160M/1623/FUVA/LP6 (COS.sp.1865082)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=192; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6	192 Secs (192 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4294 cts/sec, so the buffer time is 2.35E6/4294 = 547 sec.* *Set buffer-time = exptime*						
	9	G160M/1611/FUVA/LP4 (COS.sp.1865095)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=178; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	178 Secs (178 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4685 cts/sec, so the buffer time is 2.35E6/4685 = 502 sec.* *Set buffer-time = exptime*						
	10	G160M/1623/FUVA/LP4 (COS.sp.1865082)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=192; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	192 Secs (192 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4294 cts/sec, so the buffer time is 2.35E6/4294 = 547 sec.* *Set buffer-time = exptime*						

Orbit Structure




Orbit 2
Server Version: 20240604
GS Reacq
Exp. 6
Exp. 7 (Split-WAVECAL)
Exp. 7
Exp. 8 (Split-WAVECAL)
Exp. 8
Pointing Maneuver
Exp. 9
Exp. 10
Unused Orbital Visibility = 310
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Proposal 17326 - WD0308-APR (5A) - Cycle 31 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 17326, WD0308-APR (5A), withdrawn Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 10-APR-2024:00:00:00 AND 24-APR-2024:00:00:00

Diagnostics

(WD0308-APR (5A)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

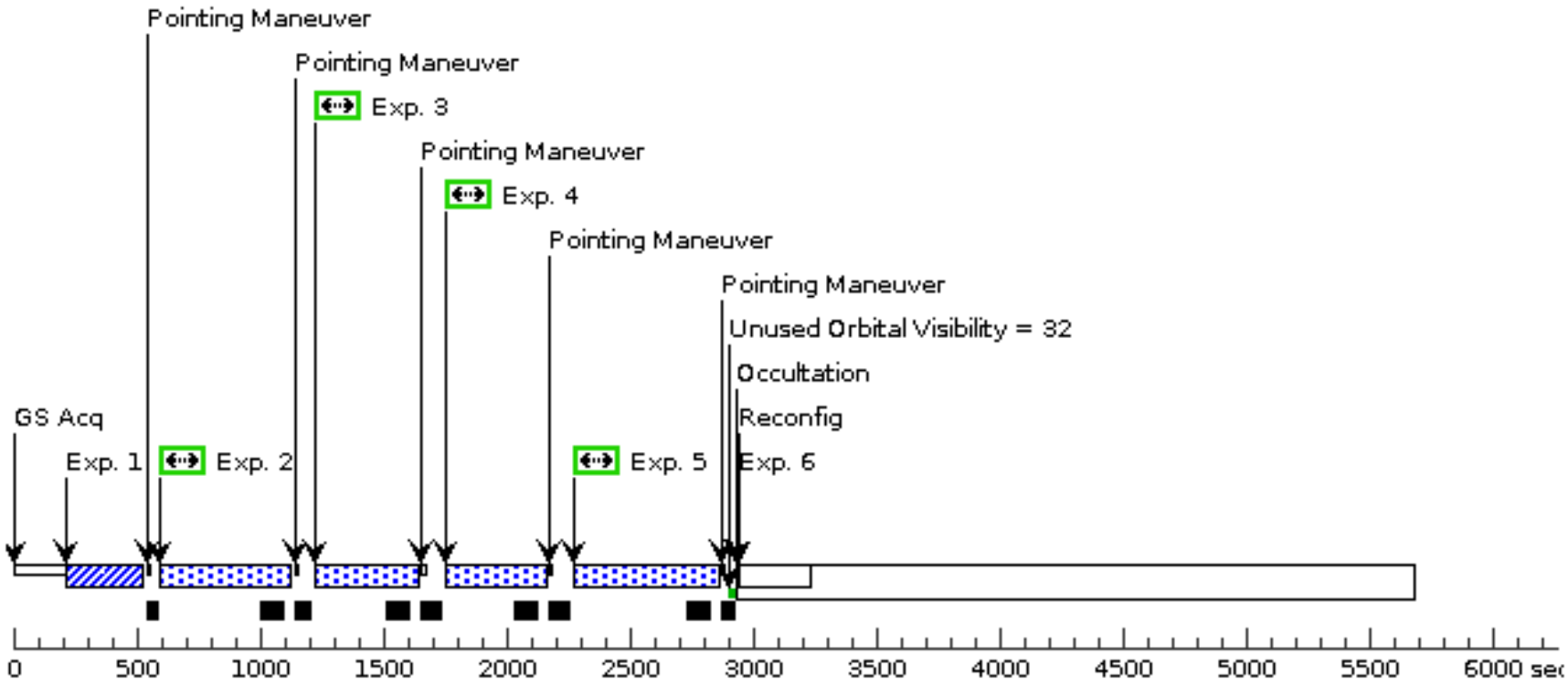
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

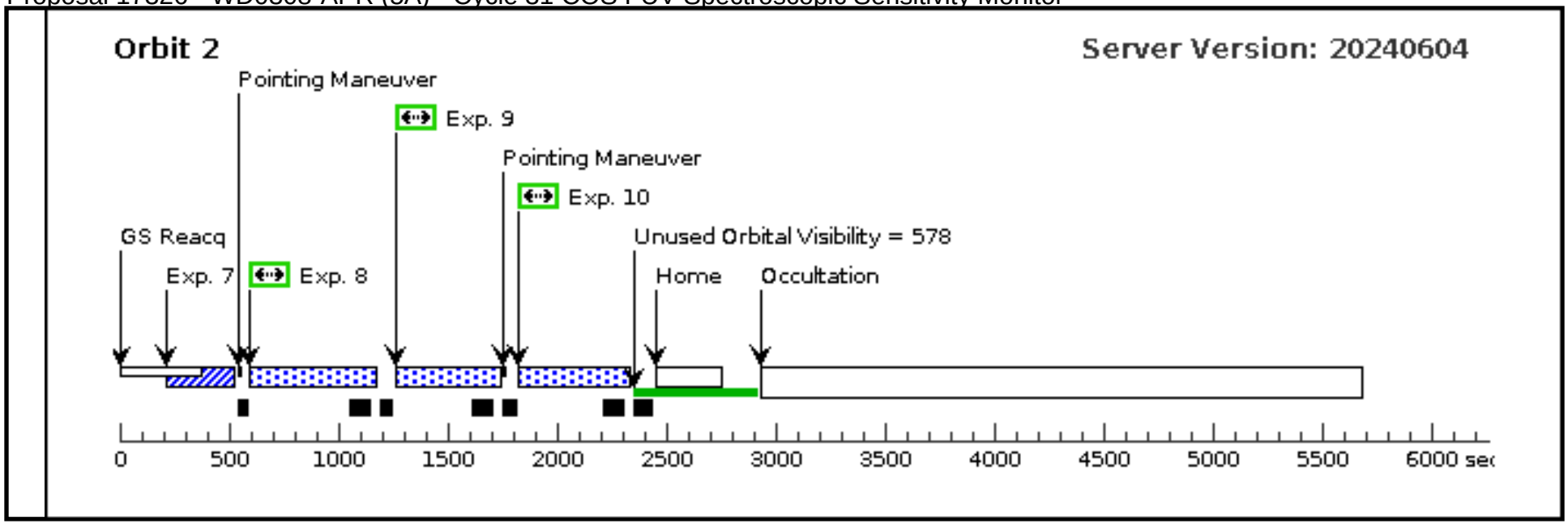
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[1]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*								
2	G130M/1055/LP2 (COS.sp.1540024)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=208; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			318 Secs (318 Secs) *[==>]*	*[1]*
	Comments: Cycle 29 comment: exposure time updated following blue modes TDS and FLUXTAB update. *ETC buffer time is 1377 sec* *Set buffer time = exptime - 110 sec*								
3	G130M/1222/LP4 (COS.sp.1457646)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=157; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			267 Secs (267 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 392 sec. *Set buffer time = exptime - 110 sec*								
4	G130M/1291/LP5 (COS.sp.1865092)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=149; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=BOTH			259 Secs (259 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 344 sec. *Set buffer time = exptime - 110 sec*								
5	G140L/1280/LP3 (COS.sp.1820354)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=261; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			371 Secs (371 Secs) *[==>]*	*[1]*
	Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *ETC buffer time is 520 sec.* *Set buffer time = exptime - 110 sec*								
6		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	*[1]*
	Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.								
7	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[2]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*								

	8	G140L/800/FUVA/LP3 (COS.sp.1457778)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=257; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	367 Secs (367 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 350 sec. *Set buffer time = exptime - 110 sec*						
	9	G140L/1105/FUVA/LP3 (COS.sp.1457846)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=222; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	332 Secs (332 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 358 sec. *Set buffer time = exptime - 110 sec*						
	10	G130M/1327/FUVA/LP5 (COS.sp.1457657)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=164; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=A	274 Secs (274 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 324 sec. *set buffer time = exptime - 110 sec*						

Orbit Structure




Orbit 2
Server Version: 20240604
Pointing Maneuver
Exp. 9
Pointing Maneuver
Exp. 10
GS Reacq
Unused Orbital Visibility = 578
Exp. 7
Exp. 8
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Proposal 17326 - WD0308-APR (5B) - Cycle 31 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 17326, WD0308-APR (5B), withdrawn Fri Jun 21 15:01:02 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 10-APR-2024:00:00:00 AND 24-APR-2024:00:00:00

Comments: All G160M observations are with SEGMENT = BOTH. Using "SEGMENT=BOTH" instead of "SEGMENT=B" for both LP4 and LP6 observations for the G160M settings to support a Cycle 30 GO program which needs both segments monitored at LP4 and LP6. (FUVA is also observed for G160M using GD71 in visit 06).

1533 & 1577 LP4

Diagnostics

(WD0308-APR (5B)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

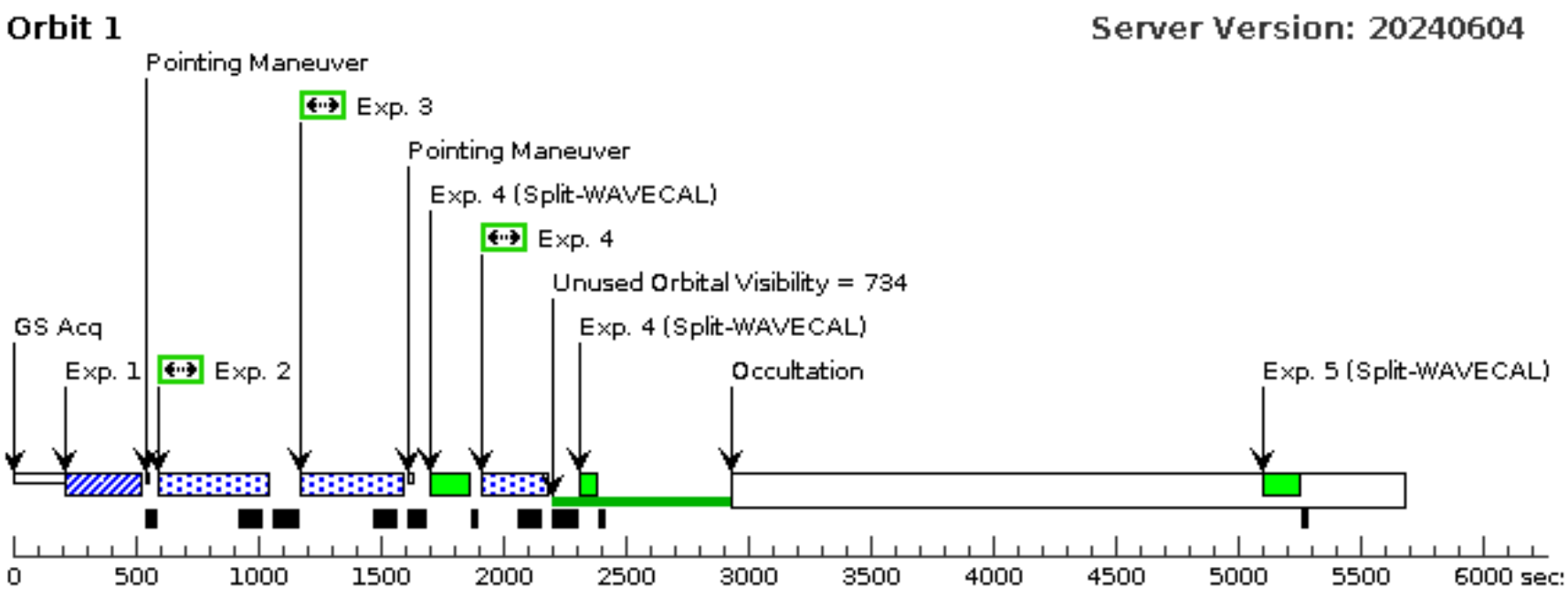
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

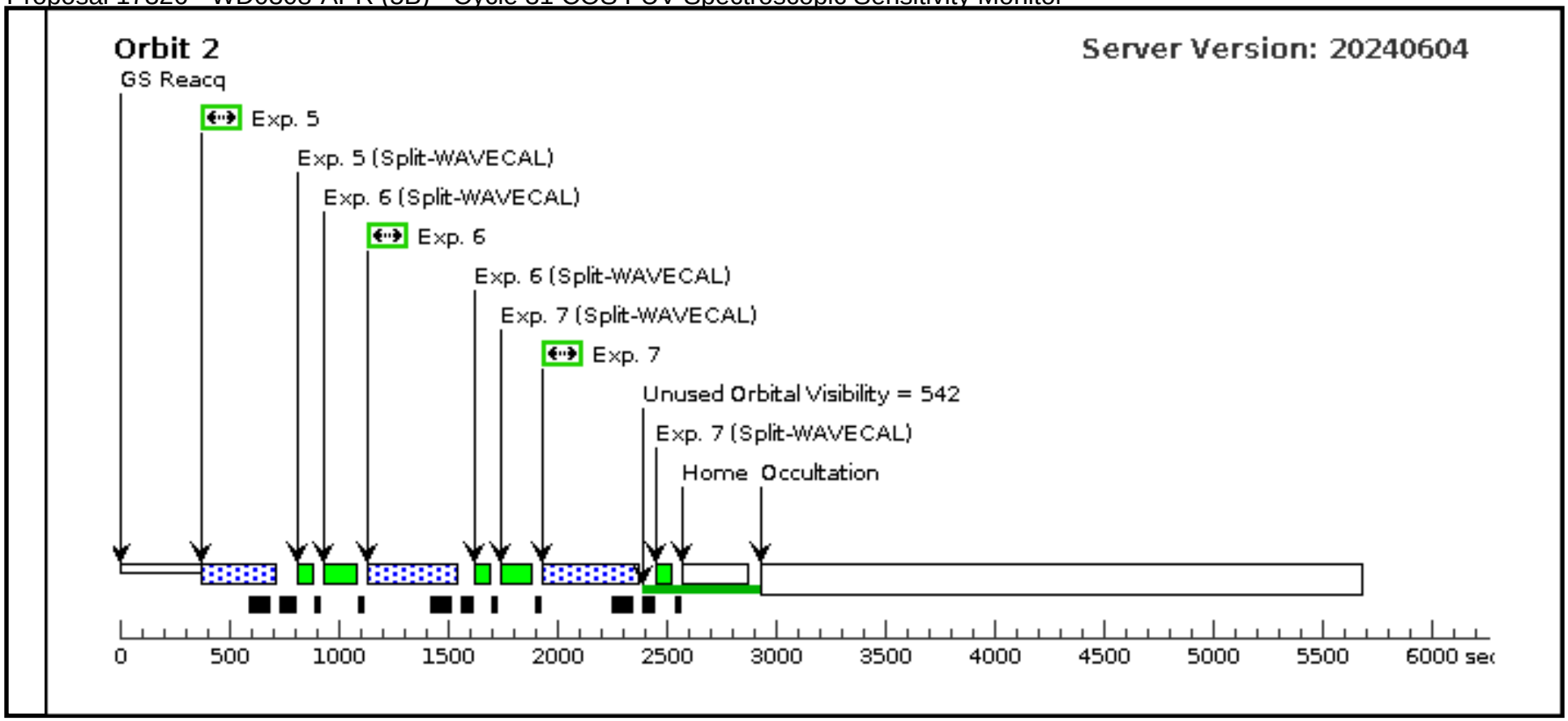
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[1]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*								
2	G160M/1533/BOTH/LP4 (COS.sp.1457649)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=1133; LIFETIME-POS=LP4; SEGMENT=BOTH			223 Secs (223 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 502 sec. *Set buffer time = exptime - 110 sec.*								
3	G160M/1577/BOTH/LP4 (COS.sp.1540036)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=1811; LIFETIME-POS=LP4; SEGMENT=BOTH			291 Secs (291 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 644 sec. *Set buffer time = exptime - 110 sec*								
4	G160M/1533/BOTH/LP6 (COS.sp.1457649)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=1133; LIFETIME-POS=LP6; SEGMENT=BOTH			223 Secs (223 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 502 sec. *Set buffer time = exptime - 110 sec.*								
5	G160M/1577/BOTH/LP6 (COS.sp.1540036)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=1811; LIFETIME-POS=LP6; SEGMENT=BOTH			291 Secs (291 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 644 sec. *Set buffer time = exptime - 110 sec*								
6	G160M/1611/BOTH/LP6 (COS.sp.1540046)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1611 A	FP-POS=3; BUFFER-TIME=2500; LIFETIME-POS=LP6; SEGMENT=BOTH			360 Secs (360 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 755 sec. *Set buffer time = exptime - 110 sec*								

	7	G160M/1623/BOTH/LP 6 (COS.sp.1540050)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=278; LIFETIME-POS=LP6; SEGMENT=BOTH	388 Secs (388 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 814 sec. *Set buffer time = exptime - 110 sec*						

Orbit Structure




Orbit 2
Server Version: 20240604
GS Reacq
Exp. 5
Exp. 5 (Split-WAVECAL)
Exp. 6 (Split-WAVECAL)
Exp. 6
Exp. 6 (Split-WAVECAL)
Exp. 7 (Split-WAVECAL)
Exp. 7
Unused Orbital Visibility = 542
Exp. 7 (Split-WAVECAL)
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17326, GD71-APR (06), completed Fri Jun 21 15:01:03 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 10-APR-2024:00:00:00 AND 24-APR-2024:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
All G160M observations are with SEGMENT = A (i.e. segment B is turned off).

1533 & 1577 LP4

Diagnostics

(GD71-APR (06)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6200 (88.1150833d)	Proper Motion RA: 76.841 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.23 (15.88701d)	Proper Motion Dec: -172.944 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

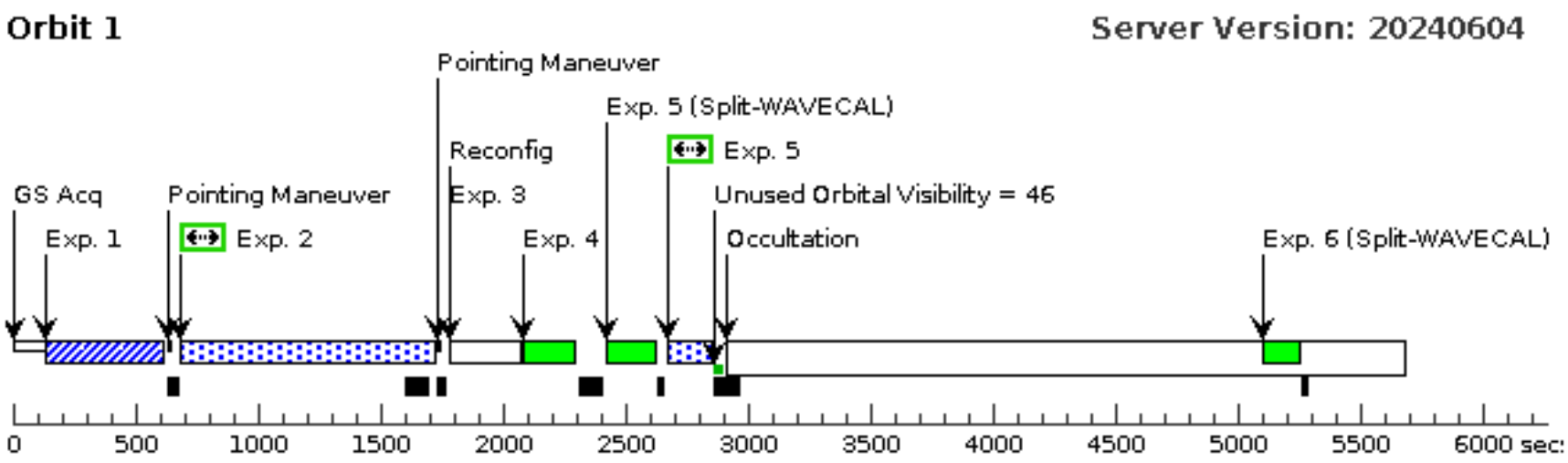
Comments: Co-ordinates and proper motions updated with values from SIMBAD, which uses the GAIA DR2 catalog.
Differences from previous co-ordinates are in decimal places in seconds of time and arcsec, within the stated errors.
Category=STAR
Description=[DA]
Extended=NO

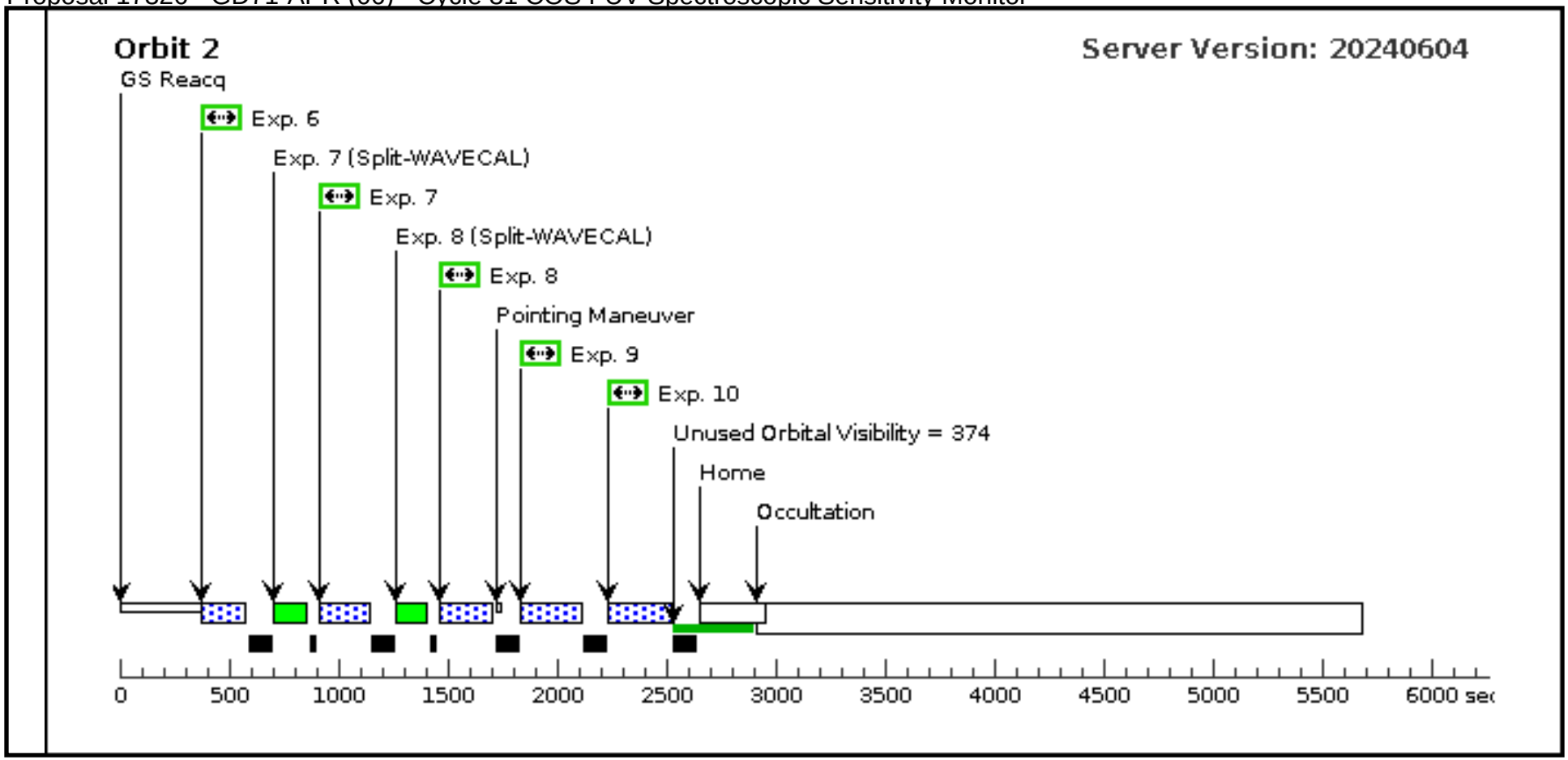
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: See Visit 02 comments.									
2	G130M/1096/FUVB/LP2 (COS.sp.1820351)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=719; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			829 Secs (829 Secs) *[==>]*	***[1]***
Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *FUVB only (all ETC warnings come from FUVA).* *The FUVB count rate is 549 cts/sec, so the buffer time is 2.35E6/566 = 4280 sec.* *Set buffer-time = exptime - 110 sec*									
3		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	***[1]***
Comments: Work-around to efficiently schedule the SEG-B to SEG-A reconfiguration. Eliminates SPSS induced gaps.									
4	G130M/1096/FUVA WAVECAL/LP2	WAVE	COS/FUV, TIME-TAG, WCA	G130M 1096 A	FP-POS=3; SEGMENT=A; FLASH=NO; LIFETIME-POS=LP2			160 Secs (160 Secs) *[==>]*	***[1]***
Comments: See Visit 02 comments.									
5	G160M/1533/FUVA/LP6 (COS.sp.1865093)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=125; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6			125 Secs (125 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 8265 cts/sec, so the buffer time is 2.35E6/8265 = 284 sec.* *Set buffer-time = exptime*									
6	G160M/1577/FUVA/LP6 (COS.sp.1865094)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=154; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6			154 Secs (154 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 5794 cts/sec, so the buffer time is 2.35E6/5794 = 406 sec.* *Set buffer-time = exptime*									

	7	G160M/1611/FUVA/LP6 (COS.sp.1865095)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=178; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6	178 Secs (178 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4685 cts/sec, so the buffer time is 2.35E6/4685 = 502 sec.* *Set buffer-time = exptime*						
	8	G160M/1623/FUVA/LP6 (COS.sp.1865082)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=192; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP6	192 Secs (192 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 4294 cts/sec, so the buffer time is 2.35E6/4294 = 547 sec.* *Set buffer-time = exptime*						
	9	G160M/1533/FUVA/LP4 (COS.sp.1865093)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=125; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	125 Secs (125 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 8265 cts/sec, so the buffer time is 2.35E6/8265 = 284 sec.* *Set buffer-time = exptime*						
	10	G160M/1577/FUVA/LP4 (COS.sp.1865094)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=154; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	154 Secs (154 Secs) *[==>]*	***[2]***
		Comments: FUVA only (all ETC warnings come from FUVB). *The FUVA count rate is 5794 cts/sec, so the buffer time is 2.35E6/5794 = 406 sec.* *Set buffer-time = exptime*						

Orbit Structure




Orbit 2
Server Version: 20240604
GS Reacq
Exp. 6
Exp. 7 (Split-WAVECAL)
Exp. 7
Exp. 8 (Split-WAVECAL)
Exp. 8
Pointing Maneuver
Exp. 9
Exp. 10
Unused Orbital Visibility = 374
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17326, WD1057-JUN (07), scheduled Fri Jun 21 15:01:03 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV

Special Requirements: GYRO MODE 1G; SCHED 100%; BETWEEN 02-JUN-2024:00:00:00 AND 30-JUN-2024:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
All G160M observations are with SEGMENT = BOTH

1533 & 1577 LP4

In Cycle 31 June, HST went into reduced gyro mode and made GD71 unscheduable for most of the year until late August. Due to this, target WD1057+719 has been exchanged for GD71. As complete G160M observations has not been taken since February 2024 and will not be until late August 2024 due to availabity of GD71, the Cycle 31 June orbits will be instead used for complete G160M observations with the target WD1057+719. Four orbits have been alloted to June and all four will be used for G160M, thus no changes to the total amount of orbits given in this cycle.

Diagnostics

(WD1057-JUN (07)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	WD1057+719	RA: 11 00 34.2200 (165.1425833d)	Proper Motion RA: -0.00973 sec of time/yr	V=14.68	Reference Frame: ICRS
		Dec: +71 38 2.99 (71.63416d)	Proper Motion Dec: -0.02 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000.0		

Comments: HST FASTEX standard
PM, coords from USNOB

GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch
Category=STAR
Description=[DA]
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/SEARCH (COS.sa.1925727)	(3) WD1057+719	COS/FUV, ACQ/SEARCH, PSA	G160M 1623 A	SCAN-SIZE=3; STEP-SIZE=1.767; LIFETIME-POS=LP6			1 Secs (1 Secs) *[==>]*	*[1]*
	Comments: In Cycle 31, the NUV MAMA underwent an anomolous shutdown in late May 2024 due to a program exceeding the global count rate limit and then in June 2024 HST went into reduced gyro mode. Because of reduced gyro mode, the target GD71 is no longer available until late August and must be switched out with WD1057+719. Due to the several shutdowns and failed GS acqusitions, G160M lacked data for 3 months and will continue to lack data until August. In order to obtain FUV TDS data and the fact the NUV MAMA is still shut down, the NUV ACQ/IMG has been replaced with FUV ACQ/SEARCH, ACQ/PEAKXD, and ACQ/PEAKD for this June 2024 observation.								
2	ACQ/PEAKXD (COS.sa.1925727)	(3) WD1057+719	COS/FUV, ACQ/PEAKXD, PSA	G160M 1623 A	NUM-POS=3; STEP-SIZE=1.3; CENTER=FLUX-WT; LIFETIME-POS=LP6			1 Secs (1 Secs) *[==>]*	*[1]*
3	ACQ/PEAKD (COS.sa.1925727)	(3) WD1057+719	COS/FUV, ACQ/PEAKD, PSA	G160M 1623 A	STEP-SIZE=0.9; CENTER=FLUX-WT-FLR; NUM-POS=5; LIFETIME-POS=LP6			1 Secs (1 Secs) *[==>]*	*[1]*
4	G130M/1096/FUVB/LP2 (COS.sp.1925731)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=904; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			1014 Secs (1014 Secs) *[==>]*	*[1]*
	Comments: In June Cycle 31, Hubble went into reduced gyro mode. This makes GD71 unscheduable from Jan-August and due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments for all G160M observations, which will increase the time used in visits by a total of 10%. In the TIR 2018-01, the team advises that an S/N of ~7 at 1030.00 will achieve comparable TDS data quality to the previous GD71 observations. *FUVB only (all ETC warnings come from FUVA).* *The FUVB count rate is 217.826 cts/sec, so the buffer time is 10,829 sec.* *Set buffer-time = exptime - 110 sec*								
5		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	*[1]*
	Comments: Work-around to efficiently schedule the SEG-B to SEG-A reconfiguration. Eliminates SPSS induced gaps.								
6	G130M/1096/FUVA WAVECAL/LP2	WAVE	COS/FUV, TIME-TAG, WCA	G130M 1096 A	FP-POS=3; SEGMENT=A; FLASH=NO; LIFETIME-POS=LP2			160 Secs (160 Secs) *[==>]*	*[1]*
	Comments: Cycle 28: the exposure time has been updated to 160 seconds. This was determined after characterizing the decrease by about 12 percent in the summed count-rate with time over the period between December 2017 and April 2020.								

7	G160M/1533/LP6 (COS.sp.19205732)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=160; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP6	578 Secs (578 Secs) *[==>]*		***[2]***

Comments: In June Cycle 31, Hubble went into reduced gyro mode. This makes GD71 unscheduable from Jan-August and due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments for all G160M observations, which will increase the time used in visits by a total of 10%.

ETC Buffer fill time 239 seconds
*Set buffer-time = 239 * (2/3)*

8	G160M/1577/LP6 (COS.sp.19205430)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=216; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP6	766 Secs (766 Secs) *[==>]*		***[2]***

Comments: In June Cycle 31, Hubble went into reduced gyro mode. This makes GD71 unscheduable from Jan-August and due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments for all G160M observations, which will increase the time used in visits by a total of 10%.

ETC Buffer fill time 324 seconds
*Set buffer-time = 324 * (2/3)*

9	G160M/1623/LP6 (COS.sp.19205431)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=285; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP6	909 Secs (909 Secs) *[==>]*		***[3]***

Comments: In June Cycle 31, Hubble went into reduced gyro mode. This makes GD71 unscheduable from Jan-August and due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments for all G160M observations, which will increase the time used in visits by a total of 10%.

ETC Buffer fill time 427 seconds
*Set buffer-time = 427 * (2/3)*

10	G160M/1533/LP4 (COS.sp.19205432)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=160; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP4	578 Secs (578 Secs) *[==>]*		***[3]***

Comments: In June Cycle 31, Hubble went into reduced gyro mode. This makes GD71 unscheduable from Jan-August and due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments for all G160M observations, which will increase the time used in visits by a total of 10%.

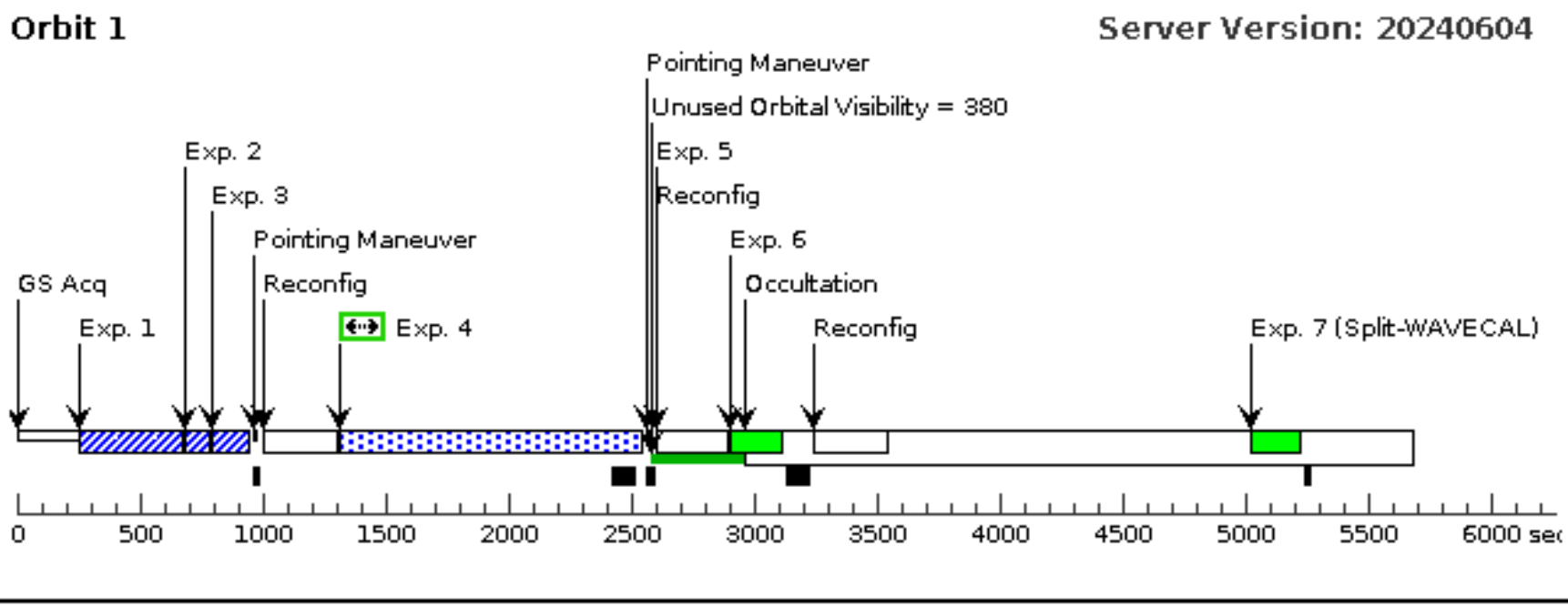
ETC Buffer fill time 239 seconds
*Set buffer-time = 239 * (2/3)*

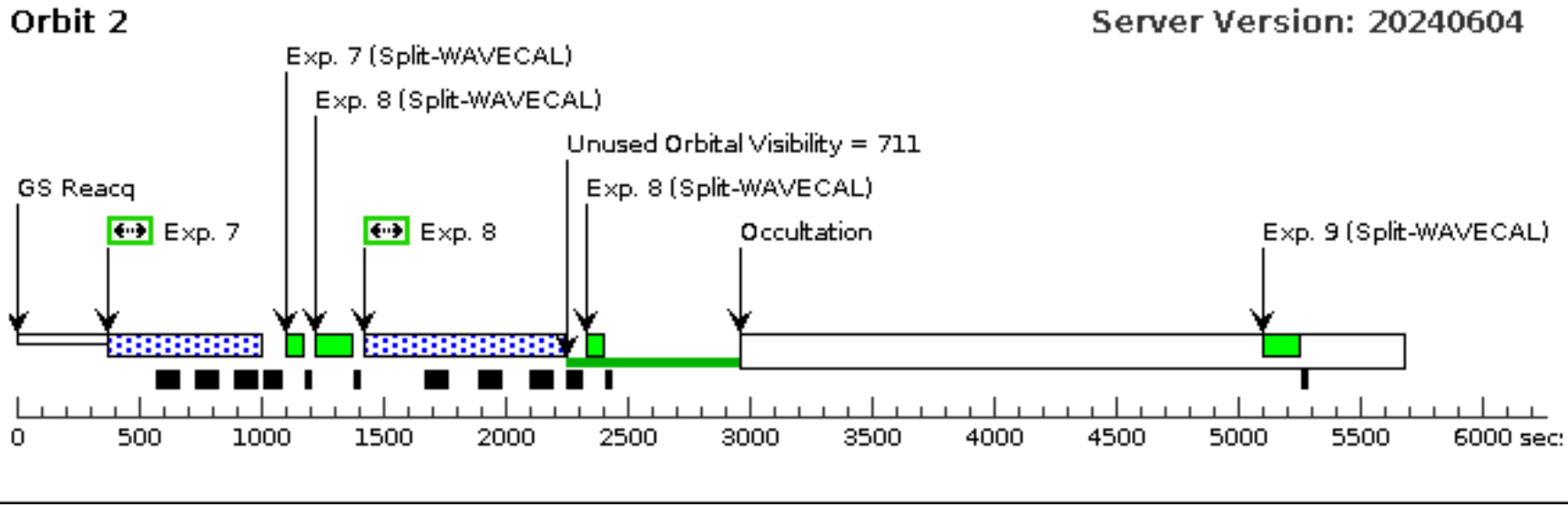
11	G160M/1577/LP4 (COS.sp.19205433)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=216; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP4	766 Secs (766 Secs) *[==>]*		***[4]***

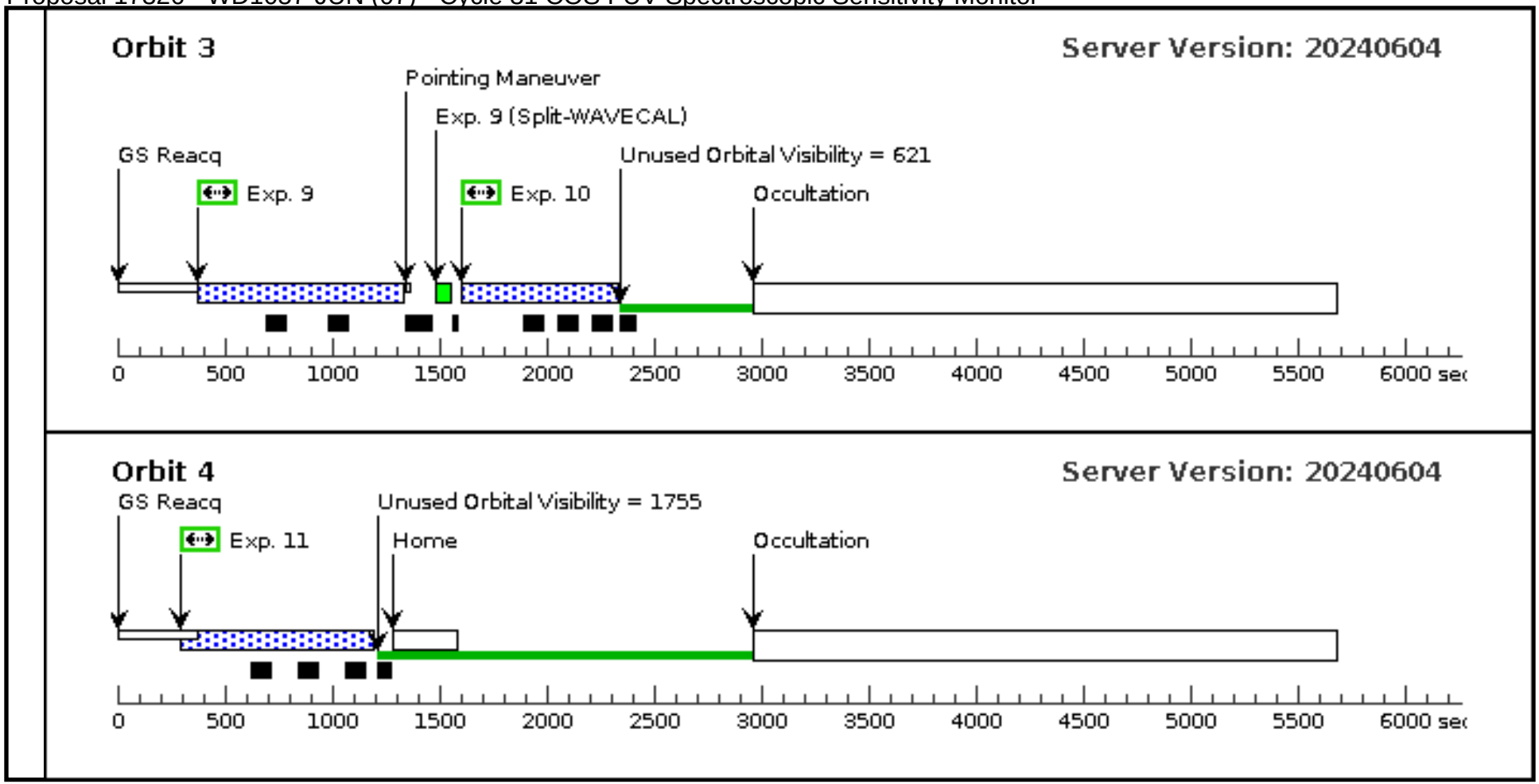
Comments: In June Cycle 31, Hubble went into reduced gyro mode. This makes GD71 unscheduable from Jan-August and due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments for all G160M observations, which will increase the time used in visits by a total of 10%.

ETC Buffer fill time 324 seconds
*Set buffer-time = 324 * (2/3)*

Orbit Structure






Orbit 3
Server Version: 20240604
Pointing Maneuver
Exp. 9 (Split-WAVECAL)
GS Reacq
Unused Orbital Visibility = 621
Exp. 9
Exp. 10
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20240604
GS Reacq
Unused Orbital Visibility = 1755
Exp. 11
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17326, WD0308-AUG (8A), implementation Fri Jun 21 15:01:03 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: GYRO MODE 1G; SCHED 90%; BETWEEN 04-AUG-2024:00:00:00 AND 25-AUG-2024:00:00:00

Diagnostics

(WD0308-AUG (8A)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

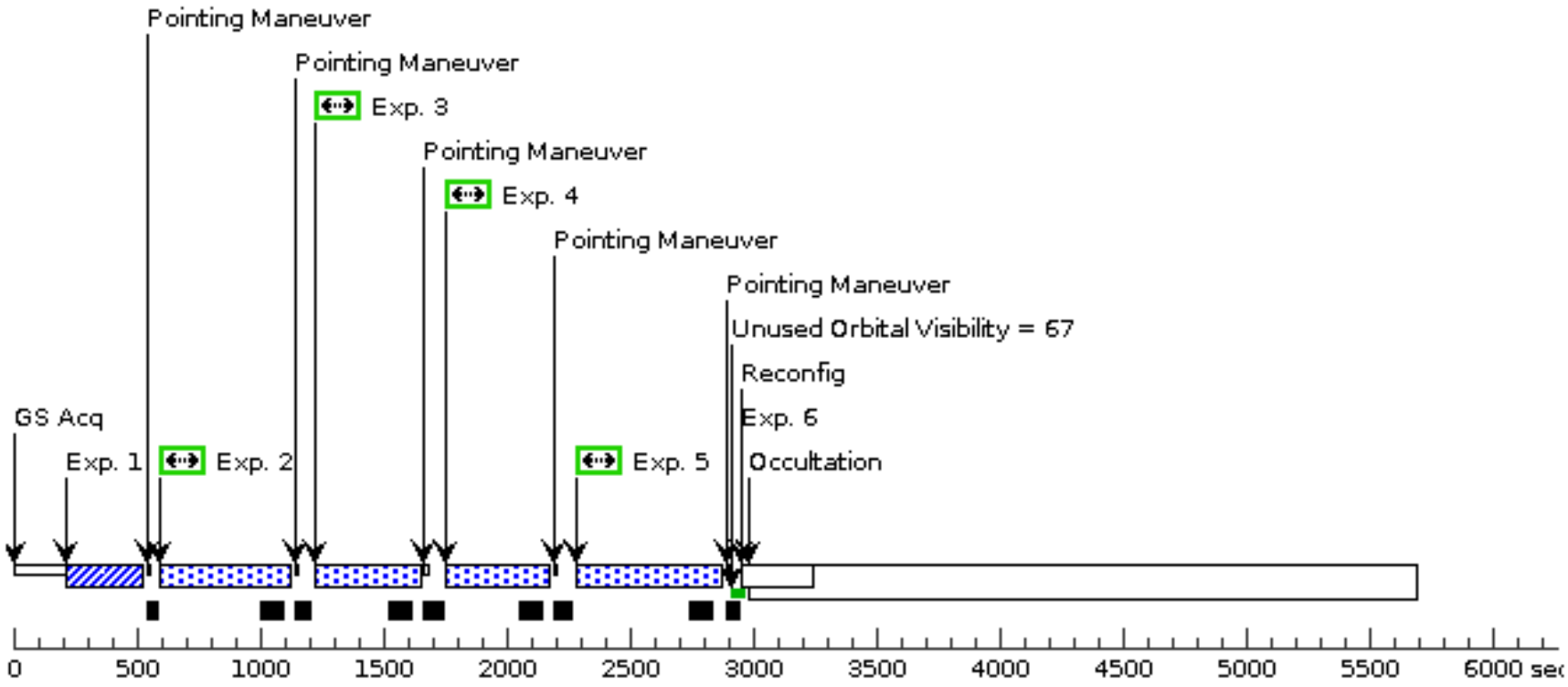
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

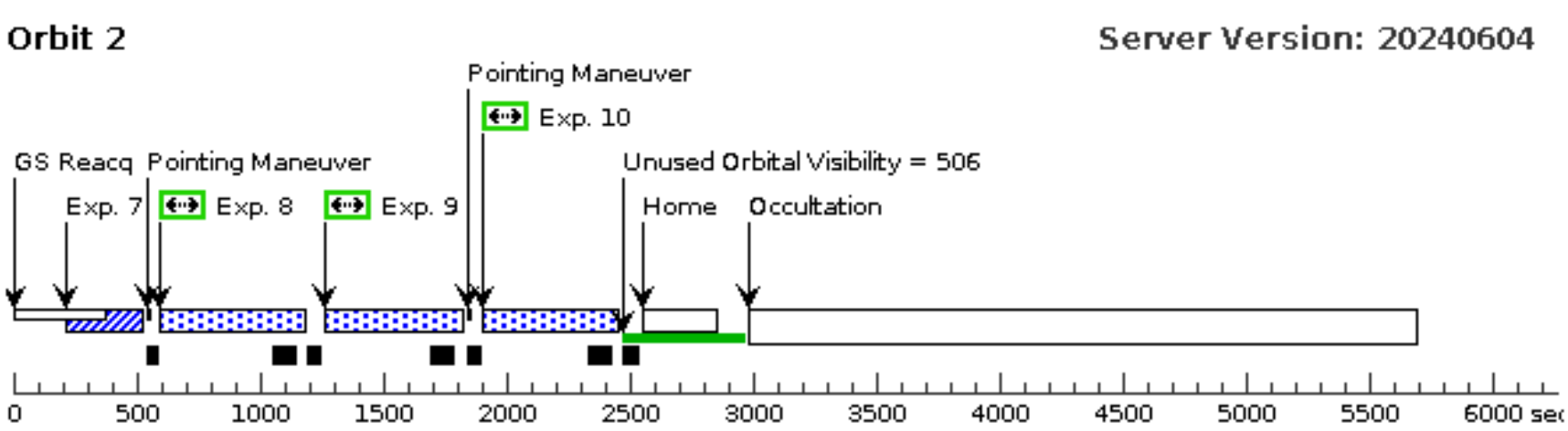
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (1925399)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	 ***[1]***
Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*									
2	G130M/1055/LP2 (COS.sp.1925738)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=2111; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			321 Secs (321 Secs) *[==>]*	 ***[1]***
Comments: Cycle 29 comment: exposure time updated following blue modes TDS and FLUXTAB update. --- *Cycle 32 comment: exposure time updated following blue modes TDS and FLUXTAB update.* *ETC buffer time is 1334 sec* *Set buffer time = exptime - 110 sec*									
3	G130M/1222/LP4 (COS.sp.1925401)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=159; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			269 Secs (269 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 424 sec. *Set buffer time = exptime - 110 sec*									
4	G130M/1291/LP5 (COS.sp.1925741)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=166; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=BOTH			276 Secs (276 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 366 sec. *Set buffer time = exptime - 110 sec*									
5	G140L/1280/LP3 (COS.sp.1925742)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=259; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			369 Secs (369 Secs) *[==>]*	 ***[1]***
Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *ETC buffer time is 554 sec.* *Set buffer time = exptime - 110 sec*									
6		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	 ***[1]***
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.									
7	ACQ/IM (1925405)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	 ***[2]***
Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*									

	8	G140L/800/FUVA/LP3 (COS.sp.1925748)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	373 Secs (373 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 396 sec. *Set buffer time = exptime - 110 sec*						
	9	G140L/1105/FUVA/LP3 (COS.sp.1925749)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=303; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	413 Secs (413 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 408 sec. *Set buffer time = exptime - 110 sec*						
	10	G130M/1327/FUVA/LP5 (COS.sp.1925750)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=204; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=A	314 Secs (314 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 362 sec. *set buffer time = exptime - 110 sec*						

Orbit Structure





Visit

Proposal 17326, WD0308-AUG (8B), implementation Fri Jun 21 15:01:03 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 04-AUG-2024:00:00:00 AND 25-AUG-2024:00:00:00

Comments: All G160M observations are with SEGMENT = B (i.e. segment A is turned off).

1611 & 1623 LP4

Diagnostics

(WD0308-AUG (8B)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

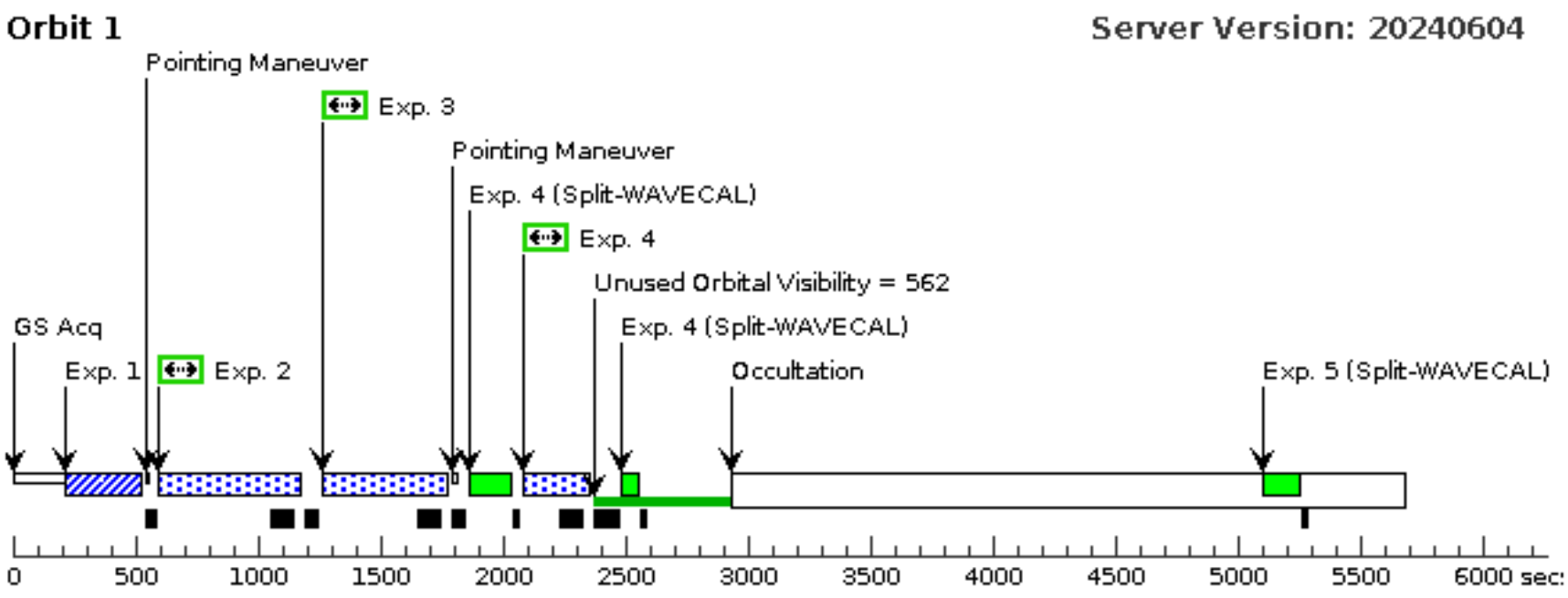
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

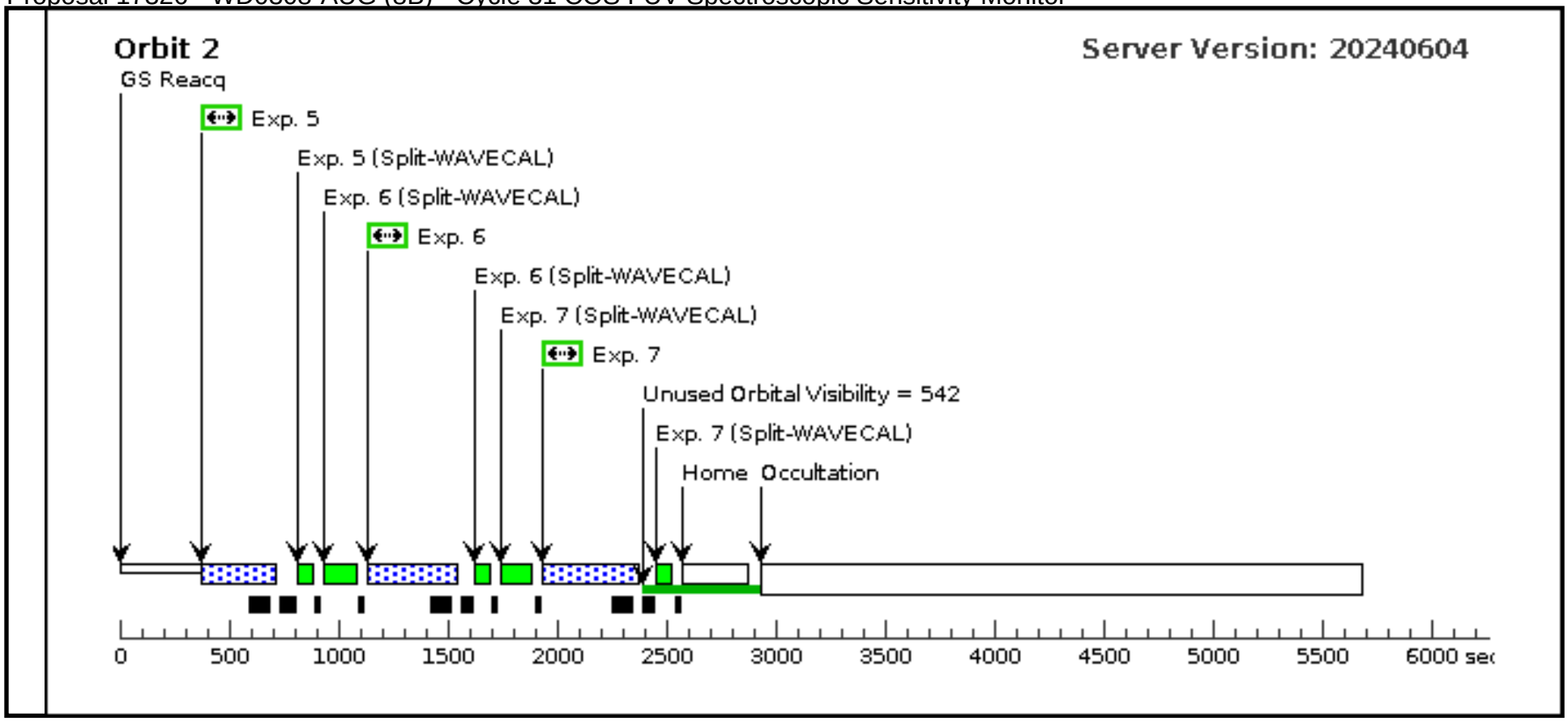
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (839564)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	*[1]*
	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*								
2	G160M/1611/BOTH/LP 4 (COS.sp.1540046)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1611 A	FP-POS=3; BUFFER-TIME=2500; LIFETIME-POS=LP4; SEGMENT=BOTH			360 Secs (360 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 755 sec. *Set buffer time = exptime - 110 sec*								
3	G160M/1623/BOTH/LP 4 (COS.sp.1540050)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2778; LIFETIME-POS=LP4; SEGMENT=BOTH			388 Secs (388 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 814 sec. *Set buffer time = exptime - 110 sec*								
4	G160M/1533/BOTH/LP 6 (COS.sp.1457649)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=1113; LIFETIME-POS=LP6; SEGMENT=BOTH			223 Secs (223 Secs) *[==>]*	*[1]*
	Comments: ETC buffer time is 502 sec. *Set buffer time = exptime - 110 sec.*								
5	G160M/1577/BOTH/LP 6 (COS.sp.1540036)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=1811; LIFETIME-POS=LP6; SEGMENT=BOTH			291 Secs (291 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 644 sec. *Set buffer time = exptime - 110 sec*								
6	G160M/1611/BOTH/LP 6 (COS.sp.1540046)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1611 A	FP-POS=3; BUFFER-TIME=2500; LIFETIME-POS=LP6; SEGMENT=BOTH			360 Secs (360 Secs) *[==>]*	*[2]*
	Comments: ETC buffer time is 755 sec. *Set buffer time = exptime - 110 sec*								

	7	G160M/1623/BOTH/LP 6 (COS.sp.1540050)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2788; LIFETIME-POS=LP6; SEGMENT=BOTH	388 Secs (388 Secs) *[==>]*	***[2]***
	Comments: ETC buffer time is 814 sec. *Set buffer time = exptime - 110 sec*							

Orbit Structure




Orbit 2
Server Version: 20240604
GS Reacq
Exp. 5
Exp. 5 (Split-WAVECAL)
Exp. 6 (Split-WAVECAL)
Exp. 6
Exp. 6 (Split-WAVECAL)
Exp. 7 (Split-WAVECAL)
Exp. 7
Unused Orbital Visibility = 542
Exp. 7 (Split-WAVECAL)
Home Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17326, WD0308-OCT (9A) Fri Jun 21 15:01:03 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: GYRO MODE 1G; SCHED 90%; BETWEEN 06-OCT-2024:00:00:00 AND 20-OCT-2024:00:00:00

Diagnostics

(WD0308-OCT (9A)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

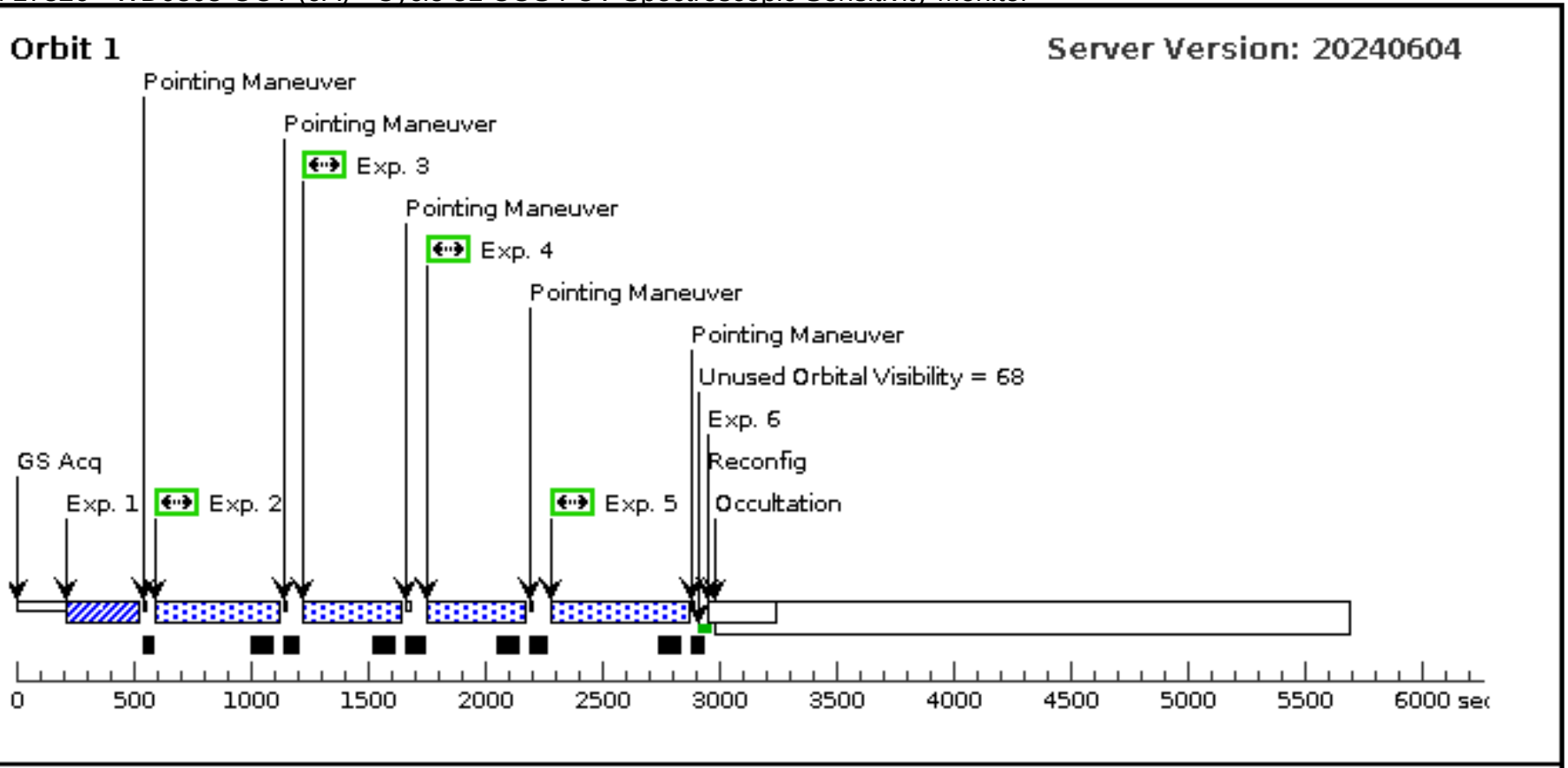
Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog.
Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.
Category=STAR
Description=[DB]
Extended=NO

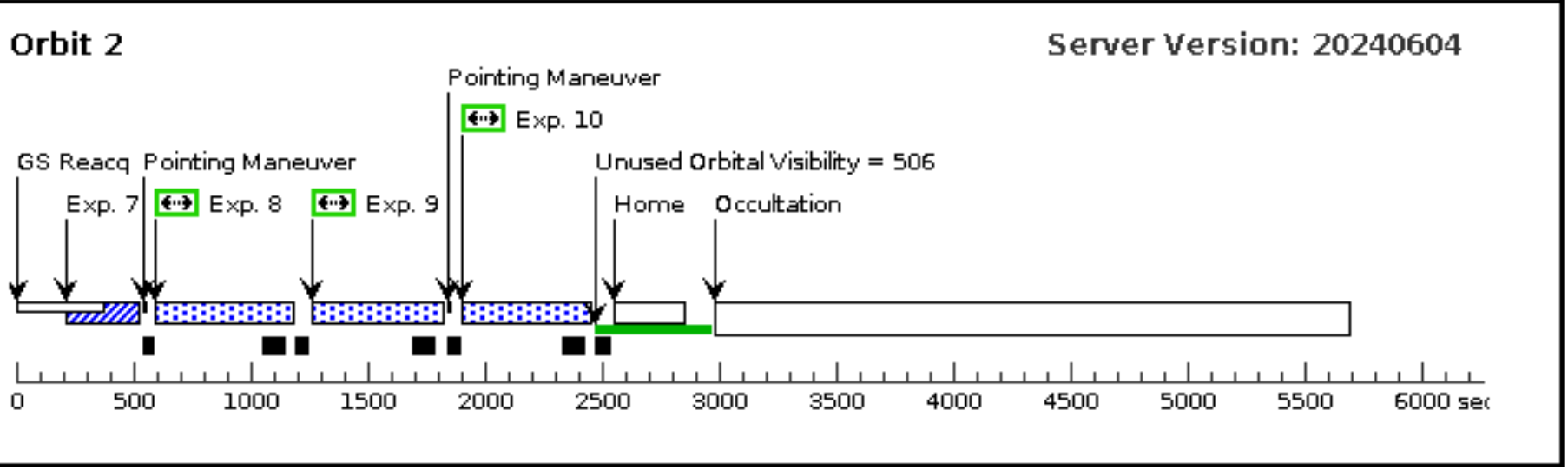
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (1925399)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	 ***[1]***
Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*									
2	G130M/1055/LP2 (COS.sp.1925738)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=2111; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			321 Secs (321 Secs) *[==>]*	 ***[1]***
Comments: Cycle 29 comment: exposure time updated following blue modes TDS and FLUXTAB update. --- *Cycle 32 comment: exposure time updated following blue modes TDS and FLUXTAB update.* *ETC buffer time is 1334 sec* *Set buffer time = exptime - 110 sec*									
3	G130M/1222/LP4 (COS.sp.1925740)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=158; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			268 Secs (268 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 421 sec. *Set buffer time = exptime - 110 sec*									
4	G130M/1291/LP5 (COS.sp.1925741)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=166; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=BOTH			276 Secs (276 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 366 sec. *Set buffer time = exptime - 110 sec*									
5	G140L/1280/LP3 (COS.sp.1925742)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=259; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			369 Secs (369 Secs) *[==>]*	 ***[1]***
Comments: Cycle 30 comment: exposure time updated following FLUXTAB update. *ETC buffer time is 554 sec.* *Set buffer time = exptime - 110 sec*									
6		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	 ***[1]***
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.									
7	ACQ/IM (1925405)	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs) *[==>]*	 ***[2]***
Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. *Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.*									

	8	G140L/800/FUVA/LP3 (COS.sp.19225748)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	373 Secs (373 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 396 sec. *Set buffer time = exptime - 110 sec*						
	9	G140L/1105/FUVA/LP3 (COS.sp.19225749)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=303; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3	413 Secs (413 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 408 sec. *Set buffer time = exptime - 110 sec*						
	10	G130M/1327/FUVA/LP5 (COS.sp.19225750)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=204; FP-POS=3; LIFETIME-POS=LP5; SEGMENT=A	314 Secs (314 Secs) *[==>]*	***[2]***
		Comments: ETC buffer time is 362 sec. *set buffer time = exptime - 110 sec*						

Orbit Structure





Visit

Proposal 17326, WD1057-OCT (9B) Fri Jun 21 15:01:03 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: GYRO MODE 1G; SCHED 80%; BETWEEN 01-OCT-2024:00:00:00 AND 20-OCT-2024:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
All G160M observations are with SEGMENT = BOTH

1533 & 1577 LP4

In Cycle 32, HST went into reduced gyro mode and made GD71 unscheduable for most of the year until September. Due to this, target WD1057+719 has been exchanged for GD71.

Diagnostics

(WD1057-OCT (9B)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	WD1057+719	RA: 11 00 34.2200 (165.1425833d)	Proper Motion RA: -0.00973 sec of time/yr	V=14.68	Reference Frame: ICRS
		Dec: +71 38 2.99 (71.63416d)	Proper Motion Dec: -0.02 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000.0		

Comments: HST FASTEX standard
PM, coords from USNOB

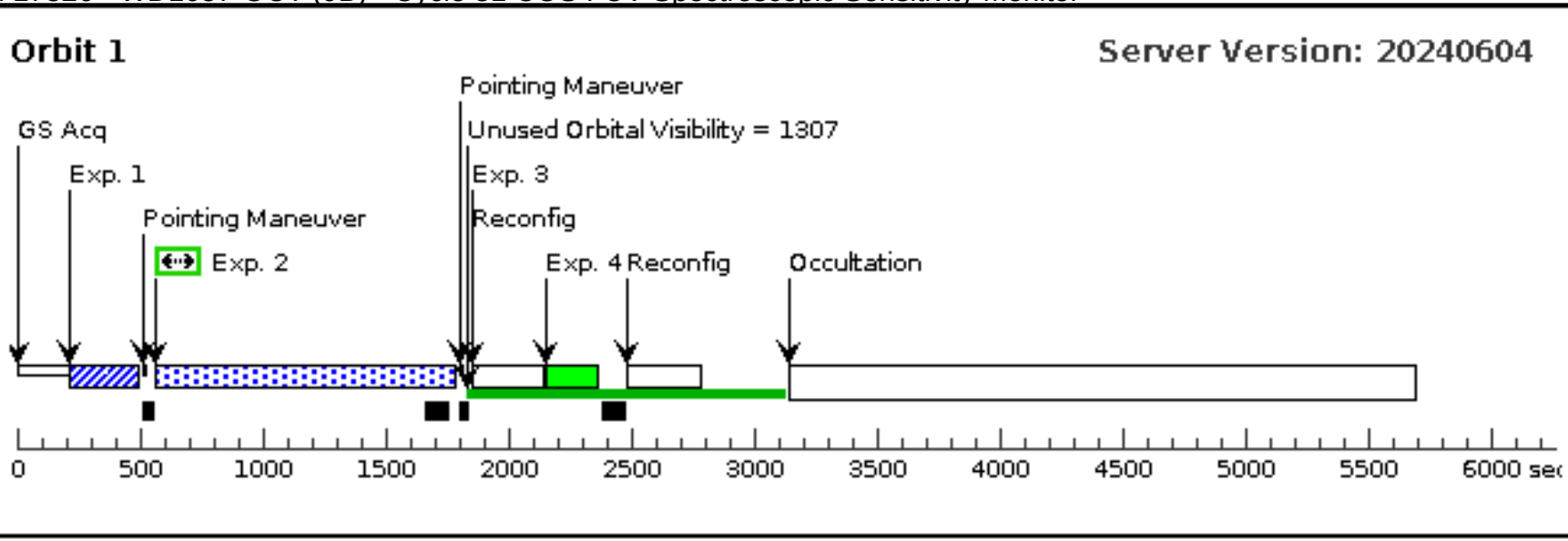
GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch
Category=STAR
Description=[DA]
Extended=NO

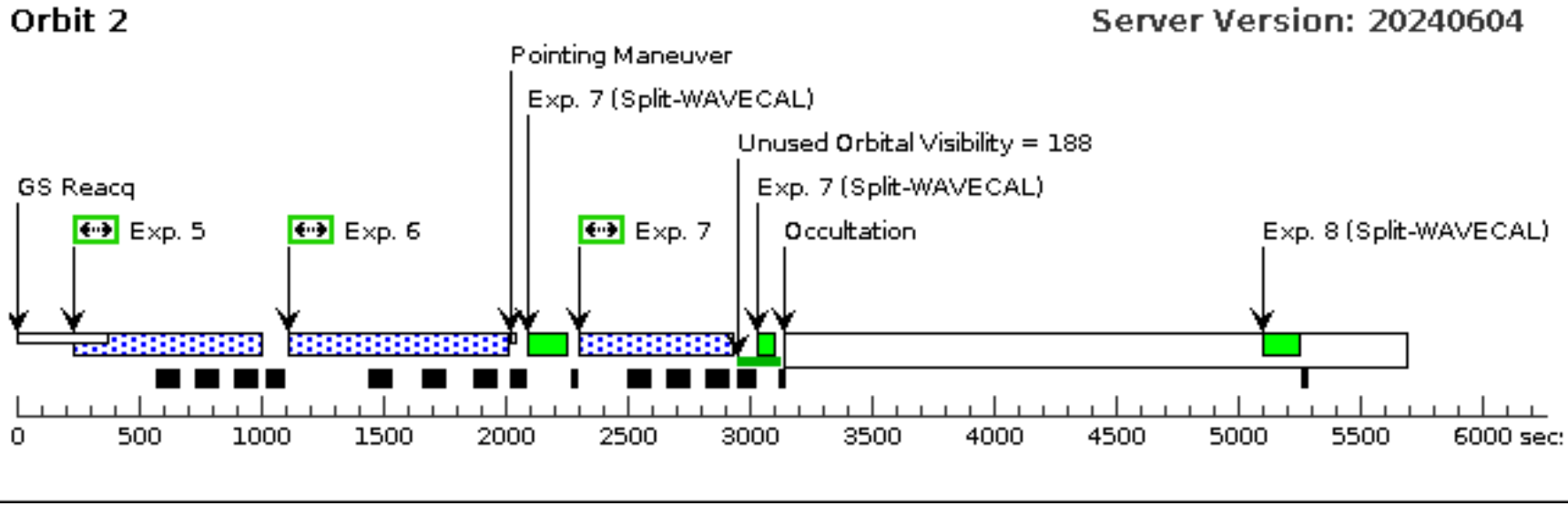
Exposures

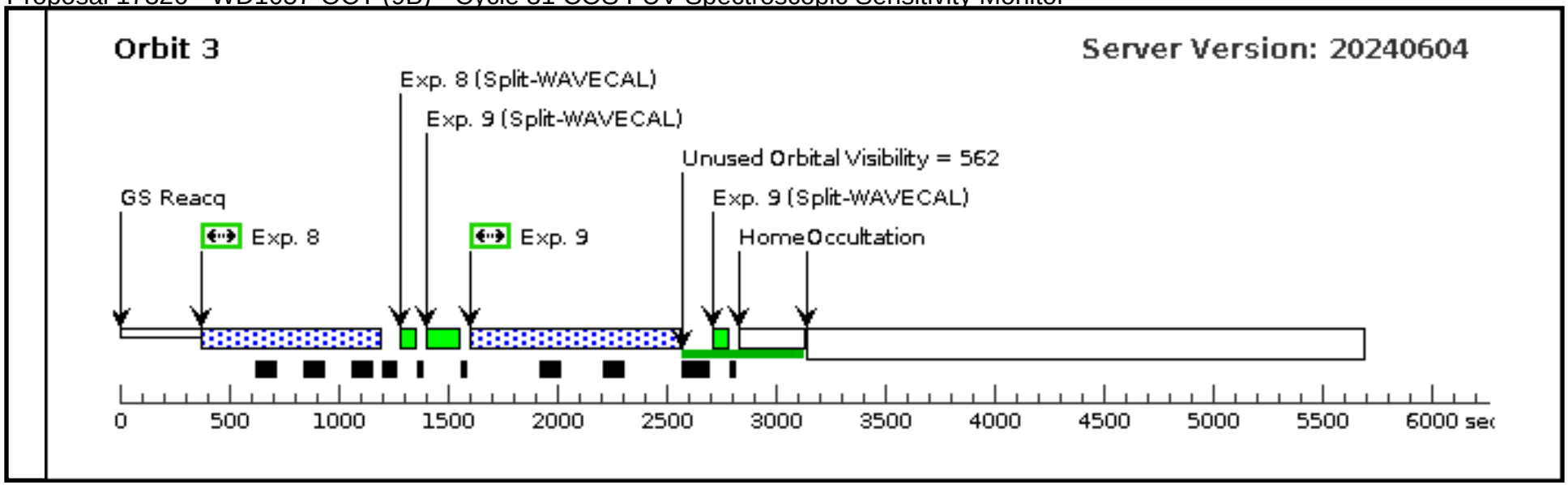
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.1925424)	(3) WD1057+719	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				30 Secs (30 Secs) *[==>]*	***[1]***
Comments: Exptime for S/N of 55 is 27 seconds. *In cycle 32, we replaced GD71 with WD1057+719 due to HST going into reduced gyro mode. The original exptime for S/N of 55 for GD71 was 90 seconds, so we use 30 seconds to achieve the same S/N as before.*									
2	G130M/1096/FUVB/LP2 (COS.sp.1925751)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=904; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			1014 Secs (1014 Secs) *[==>]*	***[1]***
Comments: In Cycle 32, Hubble went reduced gyro mode and making GD71 unscheduable. Due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments which will reduce time used in visits. A draw back will be increased exposure time. In the TIR 2018-01, the team advises that an S/N of ~7 at 1030.00 will achieve comparable TDS data quality to the previous GD71 observations. *FUVB only (all ETC warnings come from FUVA).* *The FUVB count rate is 217 cts/sec, so the buffer time is 4,294 sec.* *Set buffer-time = exptime - 110 sec*									
3		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW		1 Secs (1 Secs) *[==>]*	***[1]***
Comments: Work-around to efficiently schedule the SEG-B to SEG-A reconfiguration. Eliminates SPSS induced gaps.									
4	G130M/1096/FUVA WAVECAL/LP2	WAVE	COS/FUV, TIME-TAG, WCA	G130M 1096 A	FP-POS=3; SEGMENT=A; FLASH=NO; LIFETIME-POS=LP2			160 Secs (160 Secs) *[==>]*	***[1]***
Comments: Cycle 28: the exposure time has been updated to 160 seconds. This was determined after characterizing the decrease by about 12 percent in the summed count-rate with time over the period between December 2017 and April 2020.									
5	G160M/1533/LP4 (COS.sp.1925752)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=160; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP4			578 Secs (578 Secs) *[==>]*	***[2]***
Comments: ETC Buffer fill time 239 seconds *Set buffer-time = 239 * (2/3)*									
6	G160M/1577/LP4 (COS.sp.1925753)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=216; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP4			766 Secs (766 Secs) *[==>]*	***[2]***
Comments: ETC Buffer fill time 324 seconds *Set buffer-time = 324 * (2/3)*									

	7	G160M/1533/LP6 (COS.sp.19205752)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=160; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP6	578 Secs (578 Secs) *[==>]*	***[2]***
		Comments: In Cycle 32, Hubble went reduced gyro mode and making GD71 unscheduable. Due to this, GD71 has been replaced with WD1057+719. WD1057+719 is dimmer than GD71 and allows the ability to observe with both segments which will reduce time used in visits. *ETC buffer-time = 239* *Set buffer-time = 239*(2/3)*						
	8	G160M/1577/LP6 (COS.sp.19205753)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=216; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP6	766 Secs (766 Secs) *[==>]*	***[3]***
		Comments: ETC Buffer fill time 324 seconds *Set buffer-time = 324 * (2/3)*						
	9	G160M/1623/LP6 (COS.sp.19205754)	(3) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=285; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP6	909 Secs (909 Secs) *[==>]*	***[3]***
		Comments: ETC Buffer fill time 427 seconds *Set buffer-time = 427 * (2/3)*						

Orbit Structure






Orbit 3
Server Version: 20240604
Exp. 8 (Split-WAVECAL)
Exp. 9 (Split-WAVECAL)
Unused Orbital Visibility = 562
GS Reacq
Exp. 8
Exp. 9
Exp. 9 (Split-WAVECAL)
HomeOccultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec