15773 - Cycle 27 COS FUV Spectroscopic Sensitivity Monitor

Cycle: 27, 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?*
01	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	14-Aug-2020 13:00:37.0	yes
02	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	14-Aug-2020 13:00:39.0	yes
03	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	14-Aug-2020 13:00:41.0	yes
53	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	14-Aug-2020 13:00:43.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
04	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	14-Aug-2020 13:00:45.0	yes
54	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	14-Aug-2020 13:00:46.0	yes
05	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	14-Aug-2020 13:00:48.0	yes
06	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	14-Aug-2020 13:00:49.0	yes
07	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	14-Aug-2020 13:00:51.0	yes
57	(1) WD0308-565	COS/FUV COS/NUV	1	14-Aug-2020 13:00:53.0	yes
08	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	14-Aug-2020 13:00:54.0	yes
58	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	14-Aug-2020 13:00:56.0	yes
09	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	14-Aug-2020 13:00:57.0	yes
10	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	14-Aug-2020 13:00:59.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
11	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	14-Aug-2020 13:01:01.0	yes

36 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 5 orbits: a 3 orbit visit (target WD0308-565) that covers
G130M/1055/FUVA,
G130M/1222,
G130M/1291,
G130M/1327/FUVA,
G160M/1533/FUVB
G160M/1577/FUVB,
G160M/1623/FUVB,
G140L/800/FUVA
G140L/1105/FUVA,
G140L/1280,

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

G160M/1533/FUVA,
G160M/1577/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 observations will be done at LP4, except for G130M/1055 and G130M/1096, which will be done at LP2.

SNR requirements:
- SNR of 15 per resel at wavelength of least sensitivity for the standard modes, SNR of 25 per resel at wavelength of most sensitivity for the blue modes. For the blue modes, this will ensure S/N > 15 for l> 1030 ang for 1096/FUVB, l>1130 Ang for 1055/FUVA and 1222/FUVB
- TDS calibration better than 2% for standard modes and 10% for blue modes

Time constraints:
- Complete monitoring sequence should occur every 2 months starting in December 2018.
- GD71 is unschedulable May-July 2018, and therefore that sequence will consist of only one visit.

The exposure times and organization of visits follows the scheme used in Cycle 26, from February 2019 onward. As in Cycle 26, for all but one set of the WD0308-565 observations using G160M, the specifications now are SEGMENT=B (i.e. segment A is turned off). The one exception is the June sequence (visit 07) for which the specifications are SEGMENT=BOTH for these modes, because GD71 is not available during this period.

May 22, 2020 Update: Visit 07 has been updated to include Spectroscopic Acquisition exposures at the beginning of the visit as part of the on-orbit hybrid gyro mode test being conducted by GSFC. The remaining exposures are unchanged.

Visit

Proposal 15773, WD0308-DEC (01), completed Fri Aug 14 17:01:01 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 26-DEC-2019:00:00:00 AND 08-JAN-2020:00:00:00

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Coordinates carried over from Cycle 25 proposal
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.									
2	G130M/1055/LP2 (COS.sp.1302752)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			363 Secs (363 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is larger than exptime (1482) *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
3	G130M/1222 (COS.sp.1302754)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=154; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			254 Secs (254 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 395 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 126* *Continue use of 1 FP-POS*									
4	G130M/1291 (COS.sp.1311908)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=133; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			233 Secs (233 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 322 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 144* *Continue use of 1 FP-POS*									
5	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=228; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			328 Secs (328 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 451, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*									
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	G160M/1533/B (COS.sp.1311897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=B		222 Secs (222 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 487, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

8	G160M/1577/B (COS.sp.1311899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=B		273 Secs (273 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 599, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

9	G160M/1623/B (COS.sp.1311901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=B		369 Secs (369 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 799, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 300
Continue use of 1 FP-POS

10		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

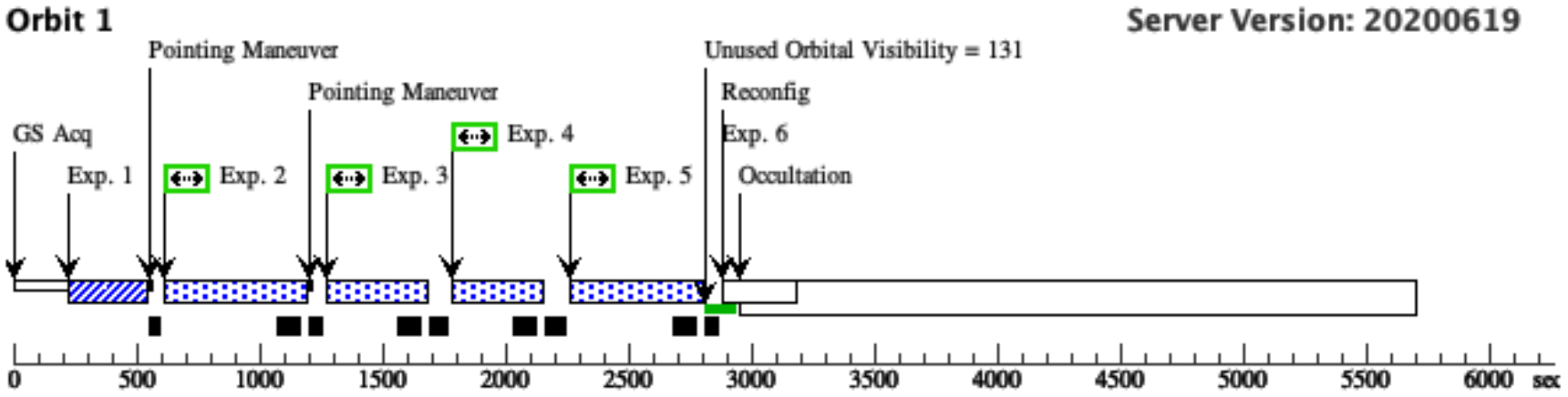
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.

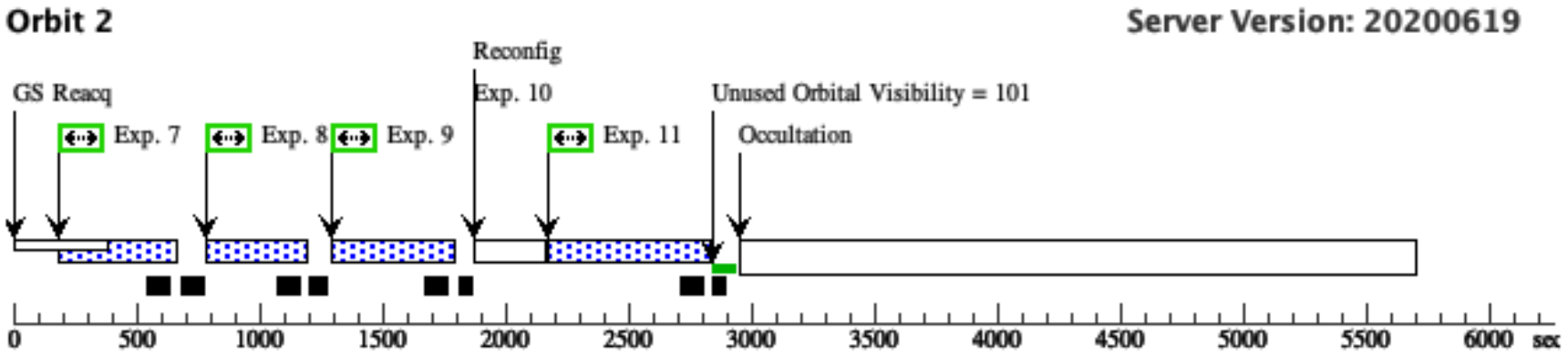
11	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4		363 Secs (363 Secs) *[==>]*	***[2]***

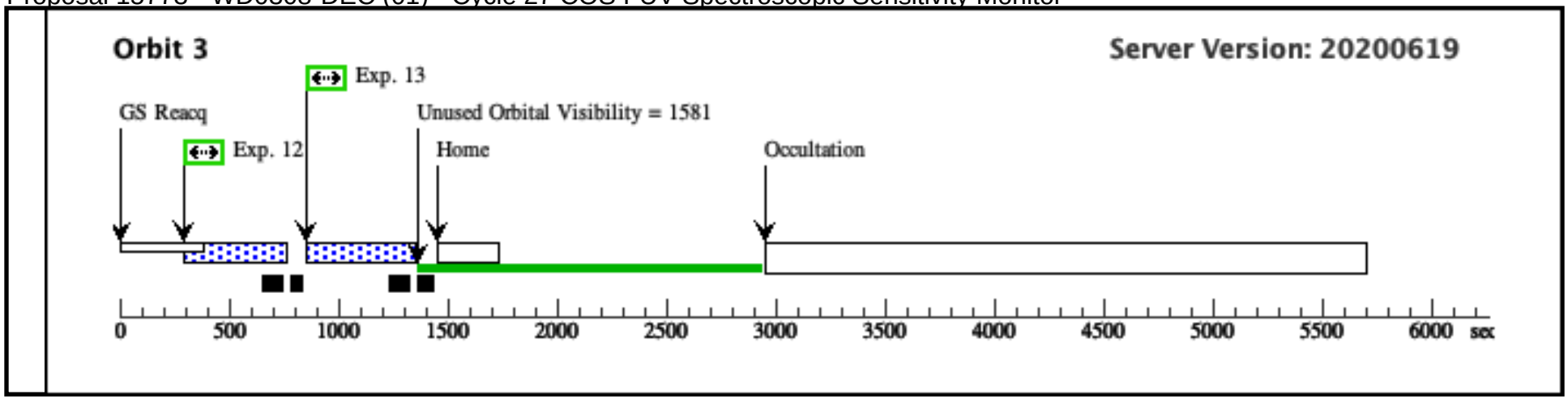
Comments: ETC buffer time is 362, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 263
Continue use of 1 FP-POS

	12	G140L/1105 /FUVA (COS.sp.102 1720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*						
	13	G130M/1327/FUVA (COS.sp.102 1693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*						

Orbit Structure



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Visit

Proposal 15773, GD71-DEC (02), completed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 26-DEC-2019:00:00:00 AND 08-JAN-2020:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
Optimized the exposure time for the G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
Carried over from Cycle 25 proposal.
Category=STAR
Description=[DA]
Extended=NO

Exposures

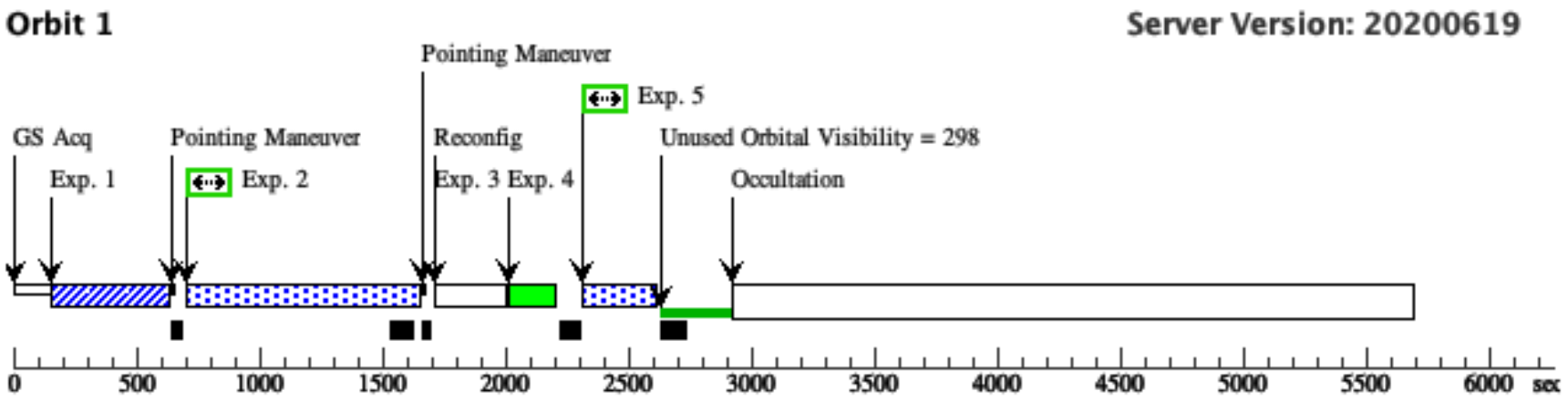
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: Exptime for S/N of 60 is 105.5 sec, using 90 sec leads to S/N of 55.									
2	G130M/1096/FUVB/LP2 (COS.sp.839576)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=644; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			744 Secs (744 Secs) *[==>]*	***[1]***
Comments: FUVB only (all ETC warnings come from FUVA). *Set buffer-time = exptime - 100 sec = 644 to maximize time on target.*									
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			140 Secs (140 Secs) *[==>]*	***[1]***
5	G160M/1533/FUVA (COS.sp.131884)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=103; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			103 Secs (103 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									
6	G160M/1577/FUVA (COS.sp.131885)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=132; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			132 Secs (132 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									

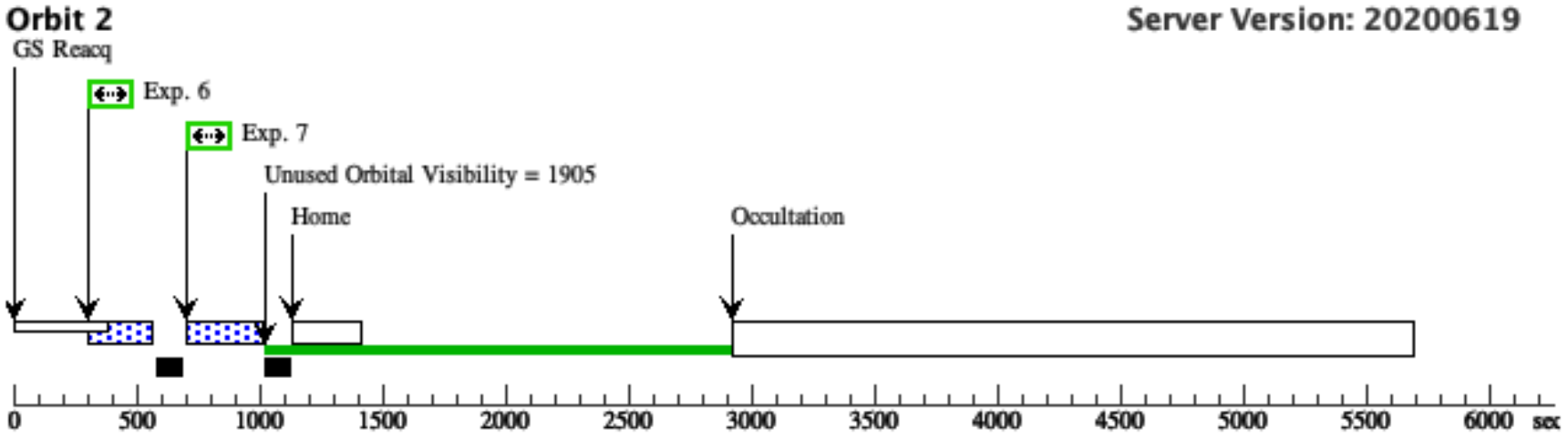
7	G160M/162 3/FUVA (COS.sp.131 1886)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=172; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	172 Secs (172 Secs) *[==>]*	*[2]*

Comments: FUVA only (all ETC warnings come from FUVB).

Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.
2.35e6 is the number of events that each buffer can record
6513 cts/sec is the count rate in FUVA, per ETC calculation above
Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime

Orbit Structure





Visit

Proposal 15773, WD0308-FEB (03), failed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 18-FEB-2020:00:00:00 AND 27-FEB-2020:00:00:00

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Coordinates carried over from Cycle 25 proposal
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.									
2	G130M/1055/LP2 (COS.sp.1302752)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			363 Secs (363 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is larger than exptime (1482) *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
3	G130M/1222 (COS.sp.1302754)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=154; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			254 Secs (254 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 395 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 126* *Continue use of 1 FP-POS*									
4	G130M/1291 (COS.sp.1311908)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=133; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			233 Secs (233 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 322 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 144* *Continue use of 1 FP-POS*									
5	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=228; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			328 Secs (328 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 451, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*									
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	G160M/1533/B (COS.sp.1311897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=B		222 Secs (222 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 487, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

8	G160M/1577/B (COS.sp.1311899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=B		273 Secs (273 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 599, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

9	G160M/1623/B (COS.sp.1311901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=B		369 Secs (369 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 799, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 300
Continue use of 1 FP-POS

10		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

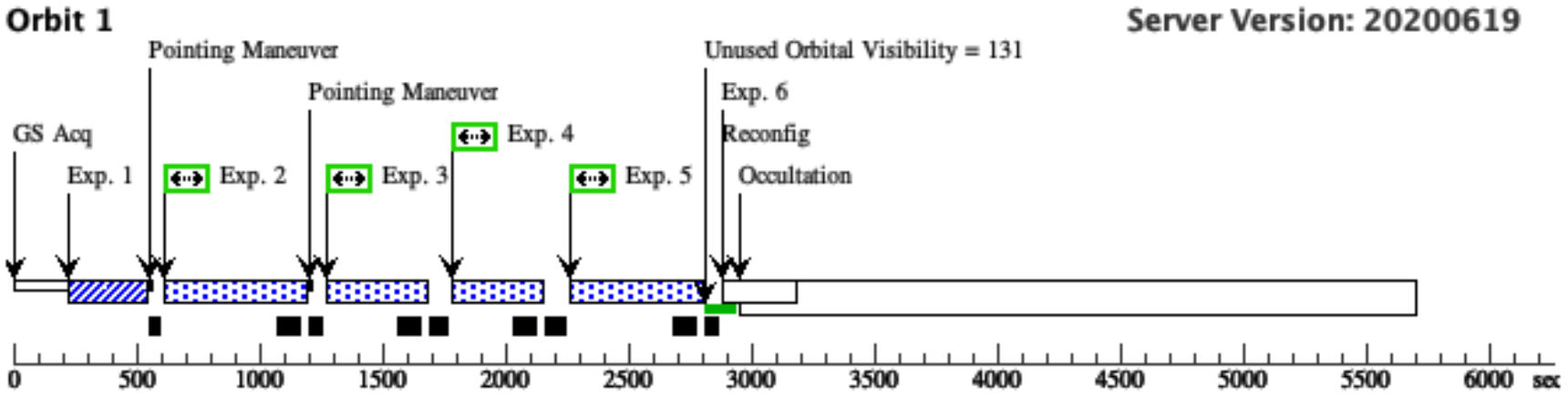
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.

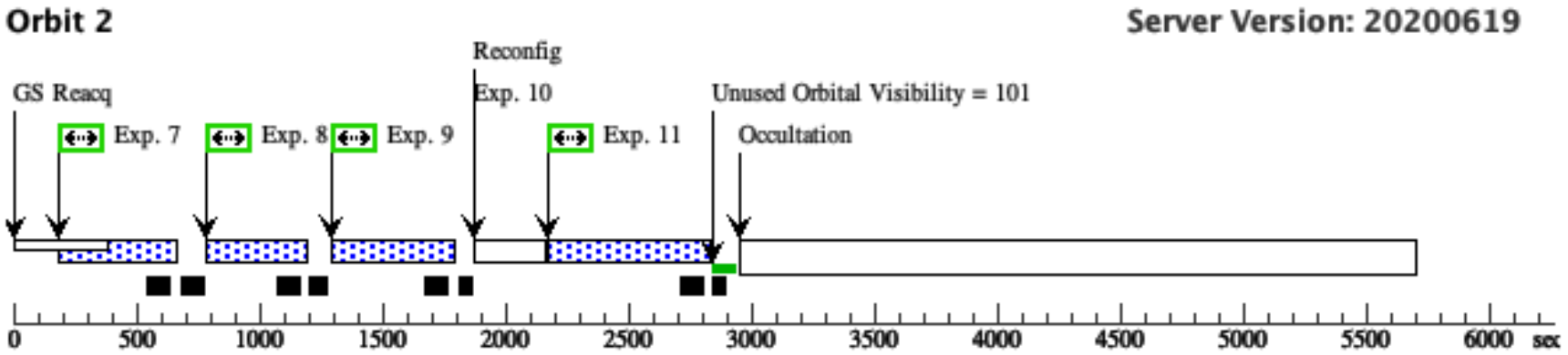
11	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4		363 Secs (363 Secs) *[==>]*	***[2]***

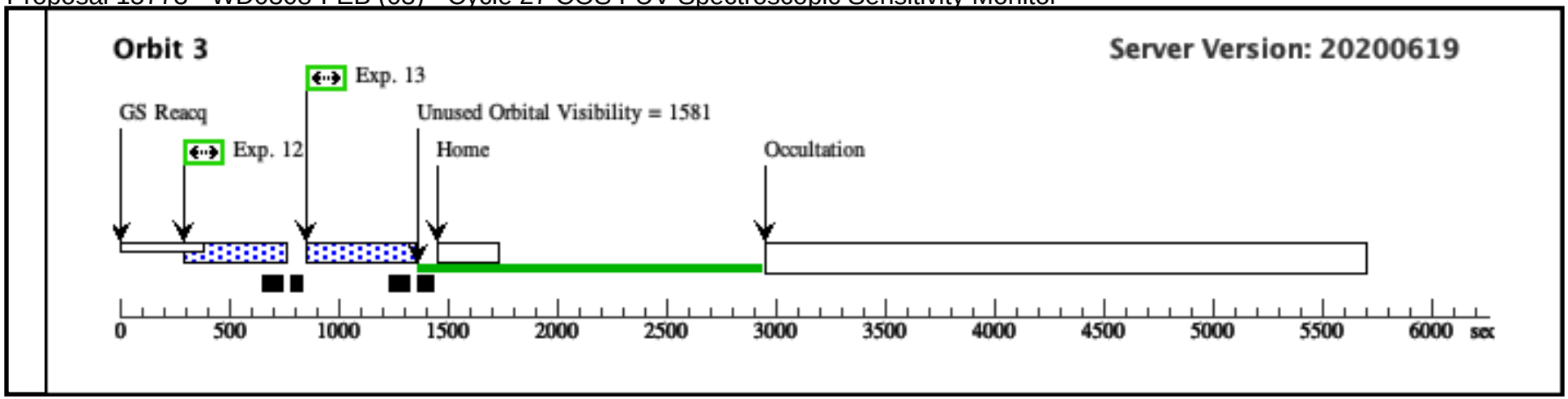
Comments: ETC buffer time is 362, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 263
Continue use of 1 FP-POS

	12	G140L/1105 /FUVA (COS.sp.102 1720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*						
	13	G130M/1327/FUVA (COS.sp.102 1693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*						

Orbit Structure



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Occultation
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2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15773, WD0308-FEB (53), completed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Coordinates carried over from Cycle 25 proposal
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.									
2	G130M/1055/LP2 (COS.sp.1302752)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			363 Secs (363 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is larger than exptime (1482) *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
3	G130M/1222 (COS.sp.1302754)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=154; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			254 Secs (254 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 395 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 126* *Continue use of 1 FP-POS*									
4	G130M/1291 (COS.sp.1311908)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=133; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			233 Secs (233 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 322 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 144* *Continue use of 1 FP-POS*									
5	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=228; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			328 Secs (328 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 451, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*									
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	G160M/1533/B (COS.sp.1311897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=B		222 Secs (222 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 487, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

8	G160M/1577/B (COS.sp.1311899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=B		273 Secs (273 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 599, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

9	G160M/1623/B (COS.sp.1311901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=B		369 Secs (369 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 799, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 300
Continue use of 1 FP-POS

10		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

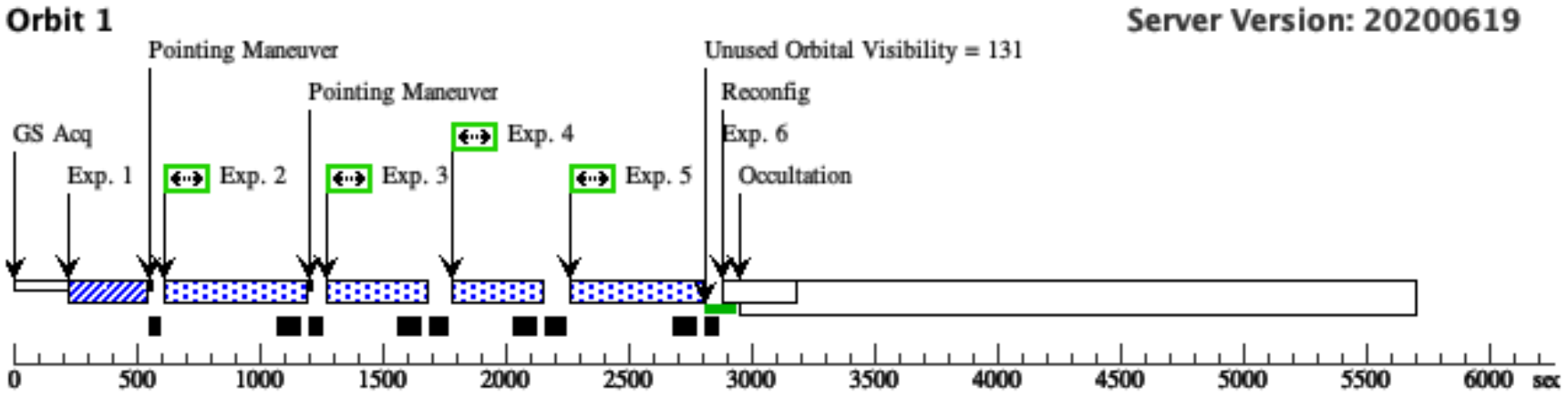
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.

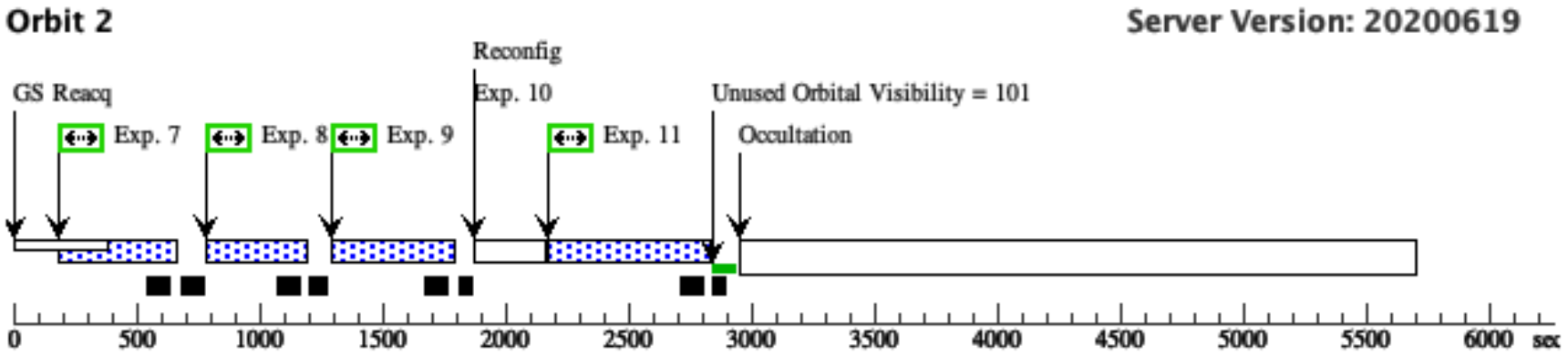
11	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4		363 Secs (363 Secs) *[==>]*	***[2]***

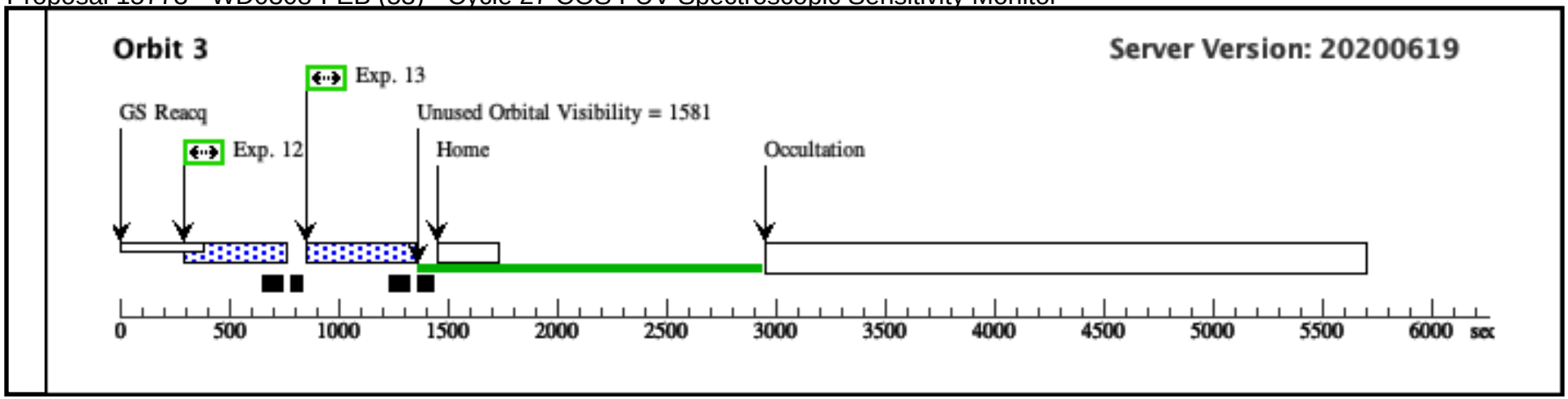
Comments: ETC buffer time is 362, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 263
Continue use of 1 FP-POS

	12	G140L/1105 /FUVA (COS.sp.102 1720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*						
	13	G130M/1327/FUVA (COS.sp.102 1693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*						

Orbit Structure



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Exp. 13
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Exp. 12
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Occultation
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1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15773, GD71-FEB (04), failed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 18-FEB-2020:00:00:00 AND 27-FEB-2020:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
Optimized the exposure time for the G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
Carried over from Cycle 25 proposal.
Category=STAR
Description=[DA]
Extended=NO

Exposures

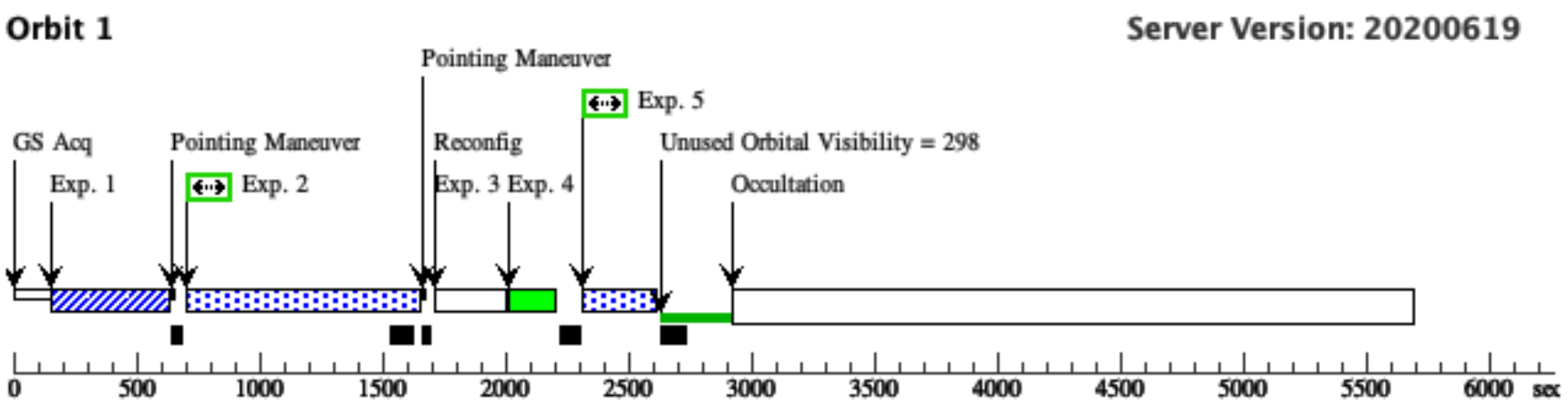
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: Exptime for S/N of 60 is 105.5 sec, using 90 sec leads to S/N of 55.									
2	G130M/1096/FUVB/LP2 (COS.sp.839576)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=644; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			744 Secs (744 Secs) *[==>]*	***[1]***
Comments: FUVB only (all ETC warnings come from FUVA). *Set buffer-time = exptime - 100 sec = 644 to maximize time on target.*									
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			140 Secs (140 Secs) *[==>]*	***[1]***
5	G160M/1533/FUVA (COS.sp.1311884)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=103; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			103 Secs (103 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									
6	G160M/1577/FUVA (COS.sp.1311885)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=132; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			132 Secs (132 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									

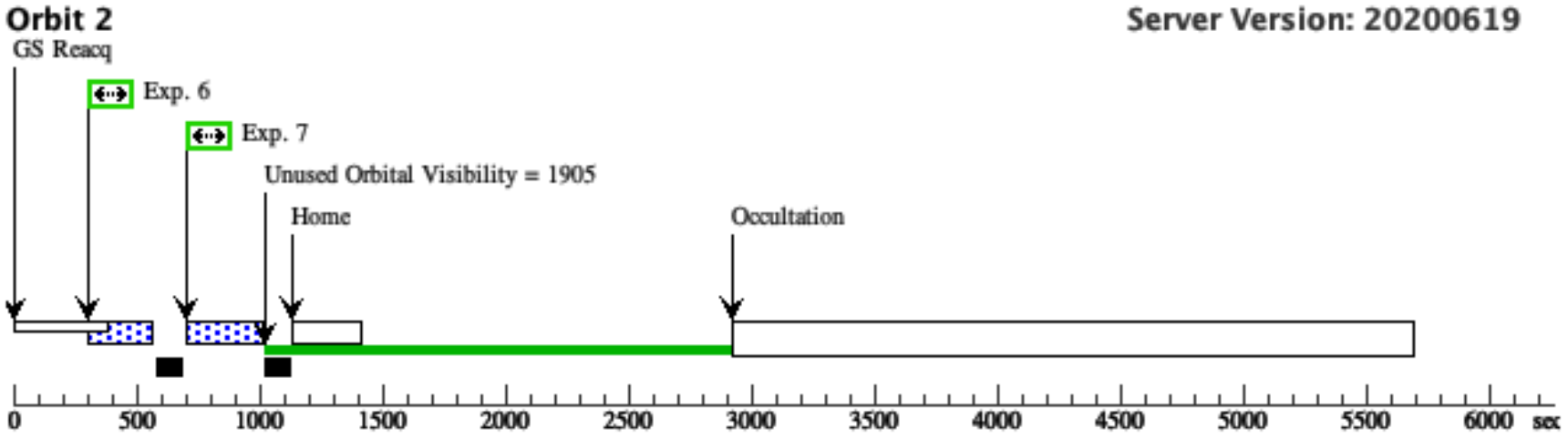
7	G160M/162 3/FUVA (COS.sp.131 1886)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=172; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	172 Secs (172 Secs) [==>]	[2]

Comments: FUVA only (all ETC warnings come from FUVB).

Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.
2.35e6 is the number of events that each buffer can record
6513 cts/sec is the count rate in FUVA, per ETC calculation above
Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime

Orbit Structure





Proposal 15773 - GD71-FEB (54) - Cycle 27 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 15773, GD71-FEB (54), completed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
Optimized the exposure time for the G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
Carried over from Cycle 25 proposal.
Category=STAR
Description=[DA]
Extended=NO

Exposures

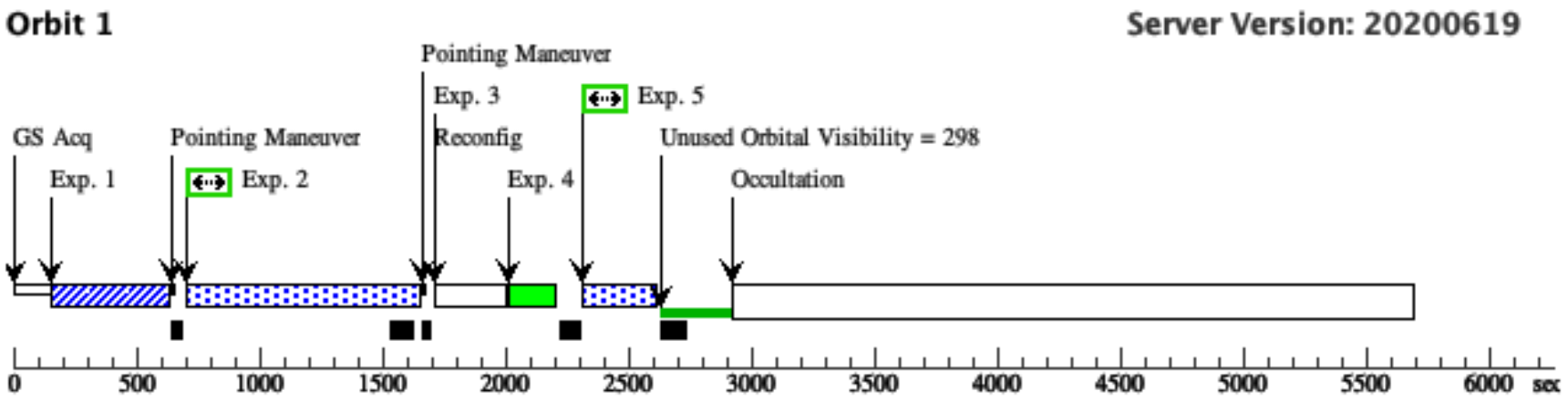
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: Exptime for S/N of 60 is 105.5 sec, using 90 sec leads to S/N of 55.									
2	G130M/1096/FUVB/LP2 (COS.sp.839576)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=644; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			744 Secs (744 Secs) *[==>]*	***[1]***
Comments: FUVB only (all ETC warnings come from FUVA). *Set buffer-time = exptime - 100 sec = 644 to maximize time on target.*									
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			140 Secs (140 Secs) *[==>]*	***[1]***
5	G160M/1533/FUVA (COS.sp.1311884)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=103; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			103 Secs (103 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									
6	G160M/1577/FUVA (COS.sp.1311885)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=132; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			132 Secs (132 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									

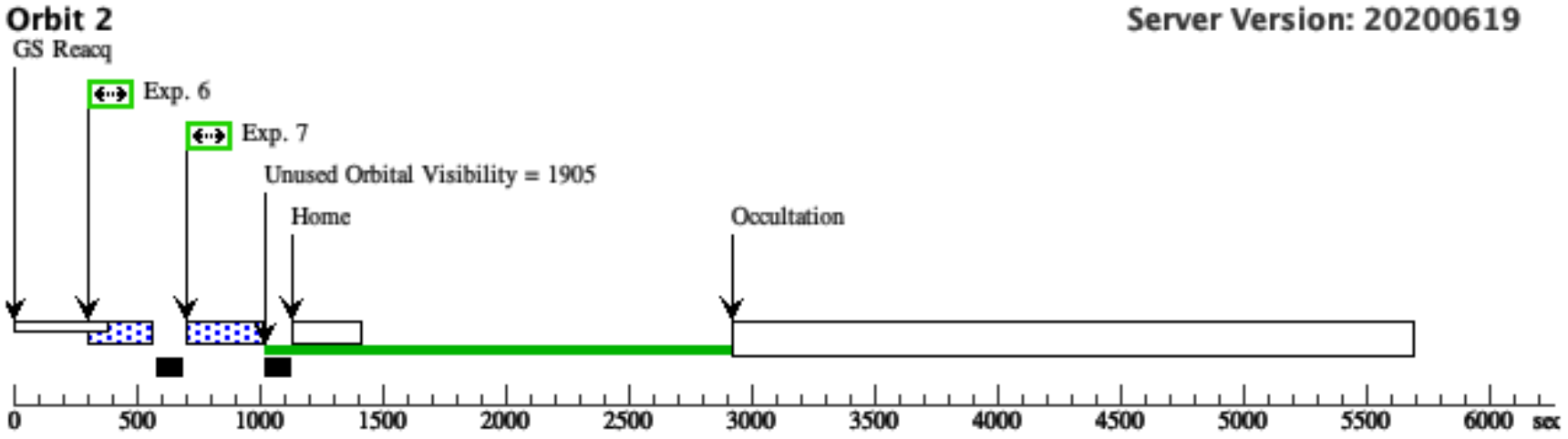
7	G160M/162 3/FUVA (COS.sp.131 1886)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=172; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	172 Secs (172 Secs) [==>]	*[2]*

Comments: FUVA only (all ETC warnings come from FUVB).

Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.
2.35e6 is the number of events that each buffer can record
6513 cts/sec is the count rate in FUVA, per ETC calculation above
Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime

Orbit Structure





Visit

Proposal 15773, WD0308-APR (05), completed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 10-APR-2020:00:00:00 AND 23-APR-2020:00:00:00

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Coordinates carried over from Cycle 25 proposal
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.									
2	G130M/1055/LP2 (COS.sp.1302752)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			363 Secs (363 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is larger than exptime (1482) *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
3	G130M/1222 (COS.sp.1302754)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=154; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			254 Secs (254 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 395 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 126* *Continue use of 1 FP-POS*									
4	G130M/1291 (COS.sp.1311908)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=133; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			233 Secs (233 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 322 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 144* *Continue use of 1 FP-POS*									
5	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=228; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			328 Secs (328 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 451, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*									
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	G160M/1533/B (COS.sp.1311897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=B		222 Secs (222 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 487, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

8	G160M/1577/B (COS.sp.1311899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=B		273 Secs (273 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 599, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

9	G160M/1623/B (COS.sp.1311901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=B		369 Secs (369 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 799, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 300
Continue use of 1 FP-POS

10		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

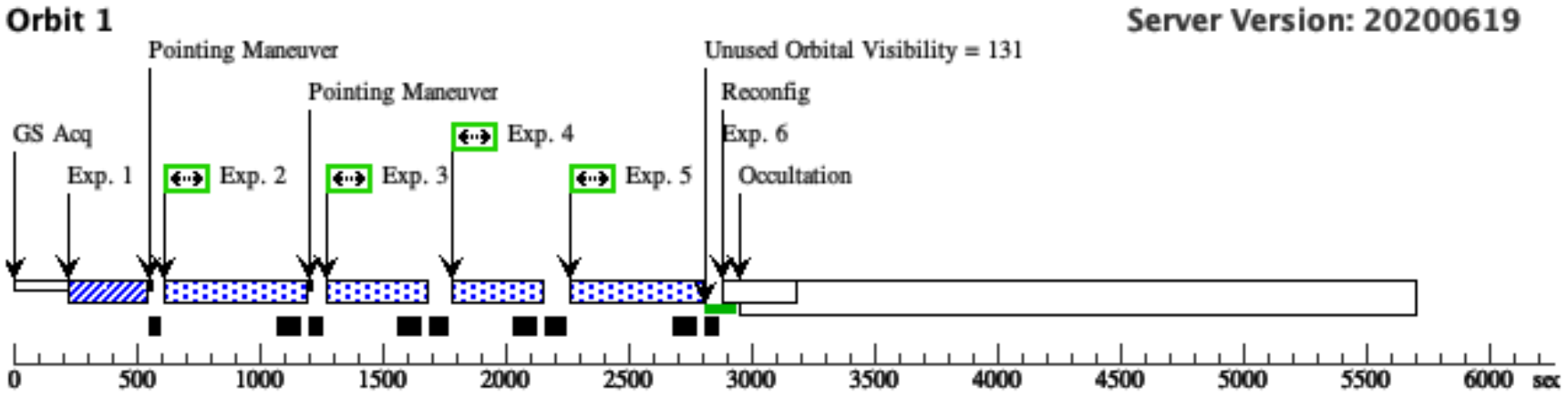
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.

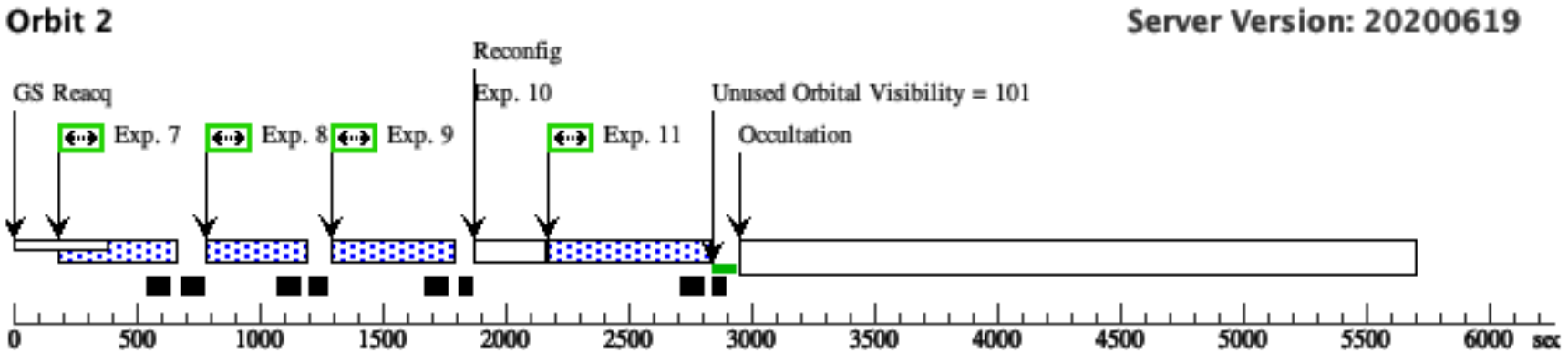
11	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4		363 Secs (363 Secs) *[==>]*	***[2]***

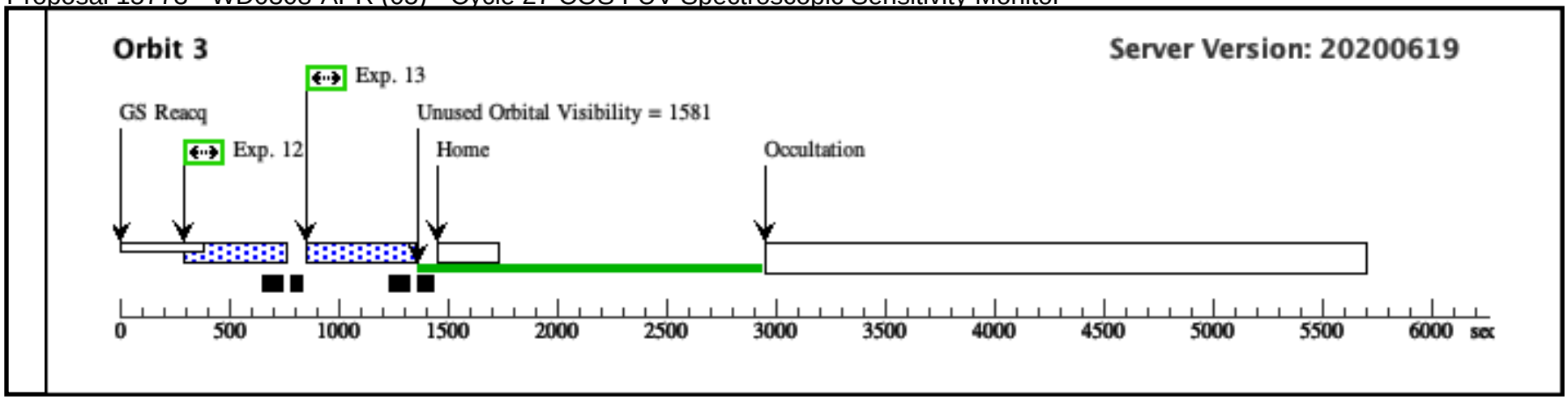
Comments: ETC buffer time is 362, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 263
Continue use of 1 FP-POS

	12	G140L/1105 /FUVA (COS.sp.102 1720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*						
	13	G130M/1327/FUVA (COS.sp.102 1693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*						

Orbit Structure



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Exp. 13
GS Reacq
Unused Orbital Visibility = 1581
Exp. 12
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15773, GD71-APR (06), completed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 10-APR-2020:00:00:00 AND 23-APR-2020:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
Optimized the exposure time for the G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
Carried over from Cycle 25 proposal.
Category=STAR
Description=[DA]
Extended=NO

Exposures

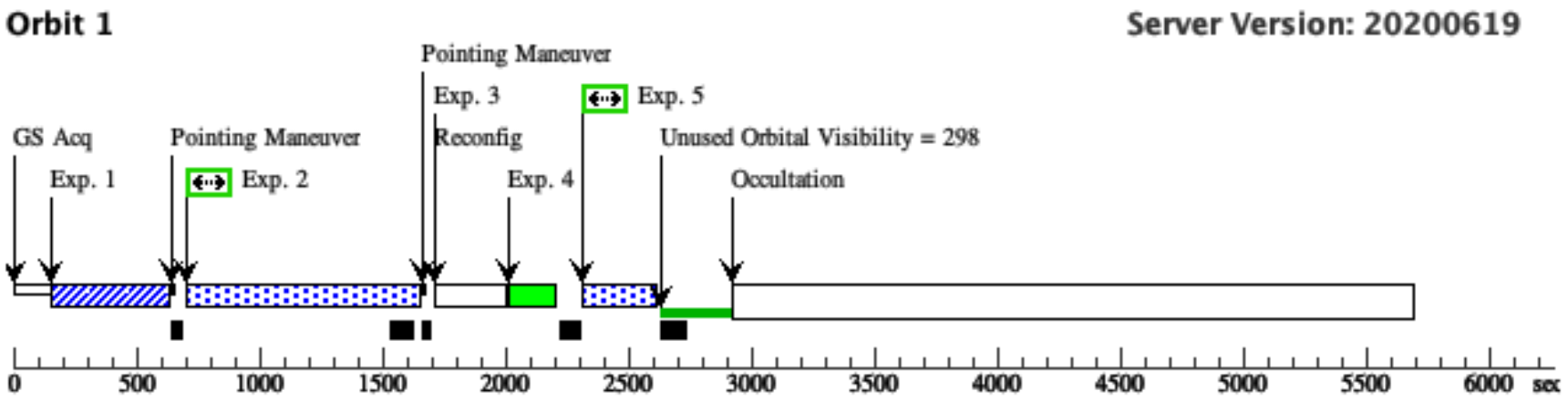
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: Exptime for S/N of 60 is 105.5 sec, using 90 sec leads to S/N of 55.									
2	G130M/1096/FUVB/LP2 (COS.sp.839576)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=644; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			744 Secs (744 Secs) *[==>]*	***[1]***
Comments: FUVB only (all ETC warnings come from FUVA). *Set buffer-time = exptime - 100 sec = 644 to maximize time on target.*									
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			140 Secs (140 Secs) *[==>]*	***[1]***
5	G160M/1533/FUVA (COS.sp.131 1884)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=103; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			103 Secs (103 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									
6	G160M/1577/FUVA (COS.sp.131 1885)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=132; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			132 Secs (132 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									

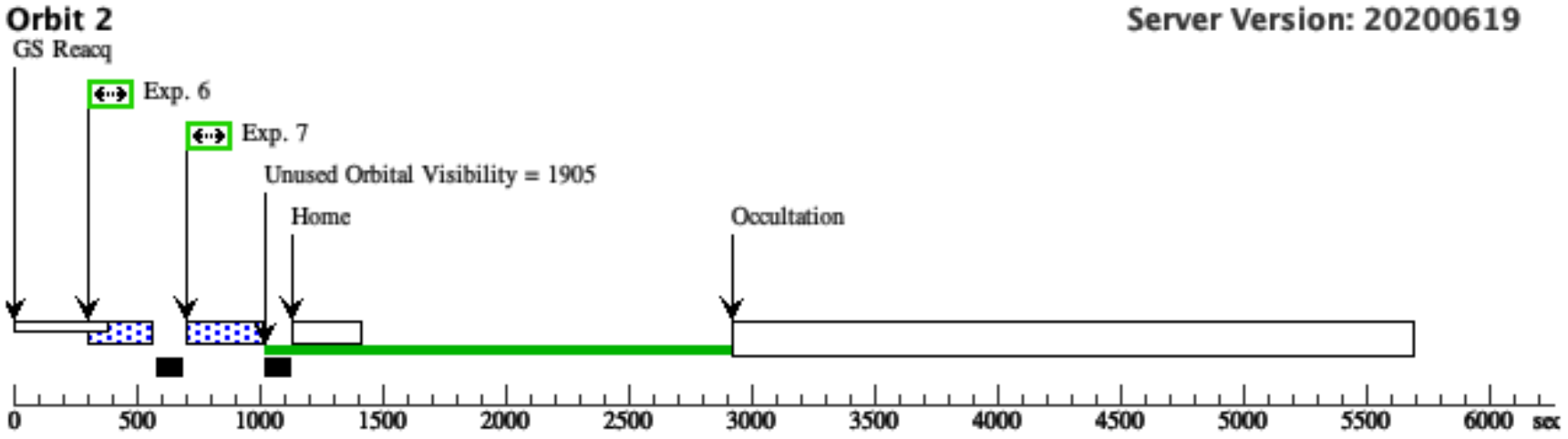
7	G160M/162 3/FUVA (COS.sp.131 1886)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=172; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	172 Secs (172 Secs) *[==>]*	*[2]*

Comments: FUVA only (all ETC warnings come from FUVB).

Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.
2.35e6 is the number of events that each buffer can record
6513 cts/sec is the count rate in FUVA, per ETC calculation above
Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime

Orbit Structure





Proposal 15773 - WD0308-JUN (07) - Cycle 27 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 15773, WD0308-JUN (07), failed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 05-JUN-2020:00:00:00 AND 18-JUN-2020:00:00:00

Comments: All G160M observations are with SEGMENT = B (i.e. segment A is turned off) for all other WD0308-565 visits.
However, for the June visit, since GD71 is not available, we use SEGMENT = BOTH to keep track of the segment A response.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Coordinates carried over from Cycle 25 proposal
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	Hybrid-ACQ/PEAKXD (COS.sa.1443089)	(1) WD0308-565	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	NUM-POS=3; STEP-SIZE=1.3; CENTER=FLUX-WT; LIFETIME-POS=LP4			1 Secs (1 Secs) *[==>]*	***[1]***
2	Hybrid-ACQ/PEAKD (COS.sa.1443089)	(1) WD0308-565	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR; LIFETIME-POS=LP4			1 Secs (1 Secs) *[==>]*	***[1]***
3	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.									
4	G130M/1055/LP2 (COS.sp.1302752)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			363 Secs (363 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is larger than exptime (1482) *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
5	G130M/1222 (COS.sp.1302754)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=154; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			254 Secs (254 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 395 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 126* *Continue use of 1 FP-POS*									
6	G130M/1291 (COS.sp.1311908)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=133; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			233 Secs (233 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 322 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 144* *Continue use of 1 FP-POS*									

7	G140L/1280 (COS.sp.102 1719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=228; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH		328 Secs (328 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 451, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 180
Continue use of 1 FP-POS

8	G160M/153 3/B (COS.sp.131 1897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=BOTH		222 Secs (222 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 487, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

9	G160M/157 7/B (COS.sp.131 1899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=BOTH		273 Secs (273 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 599, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

10	G160M/162 3/B (COS.sp.131 1901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=BOTH		369 Secs (369 Secs) *[==>]*	***[2]***

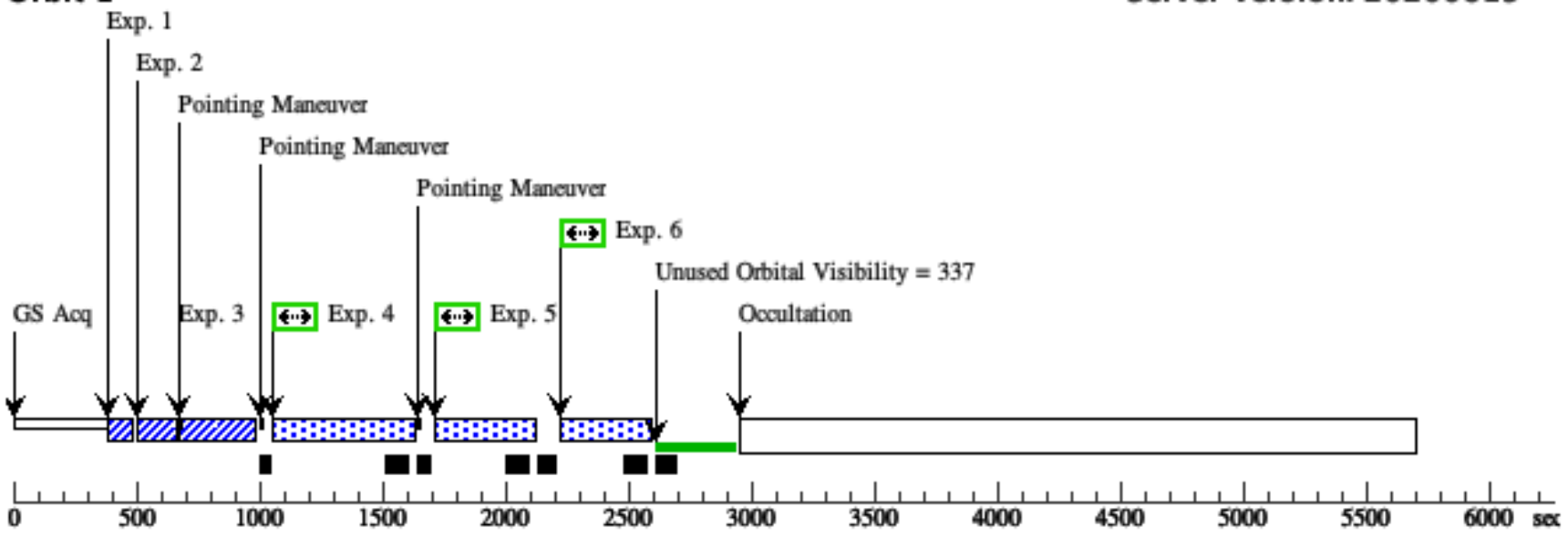
Comments: ETC buffer time is 799, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 300
Continue use of 1 FP-POS

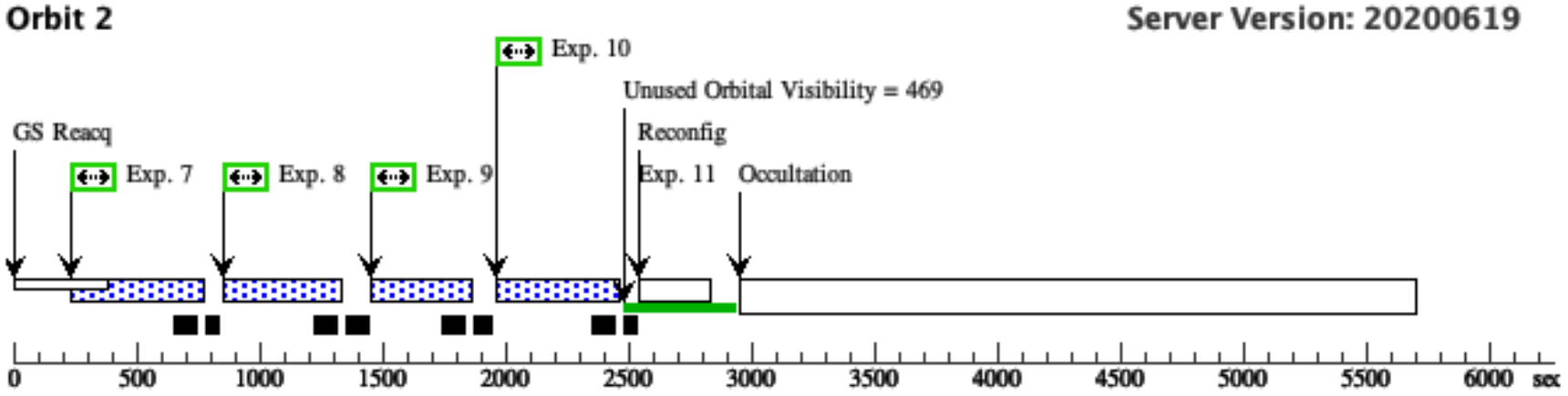
11		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

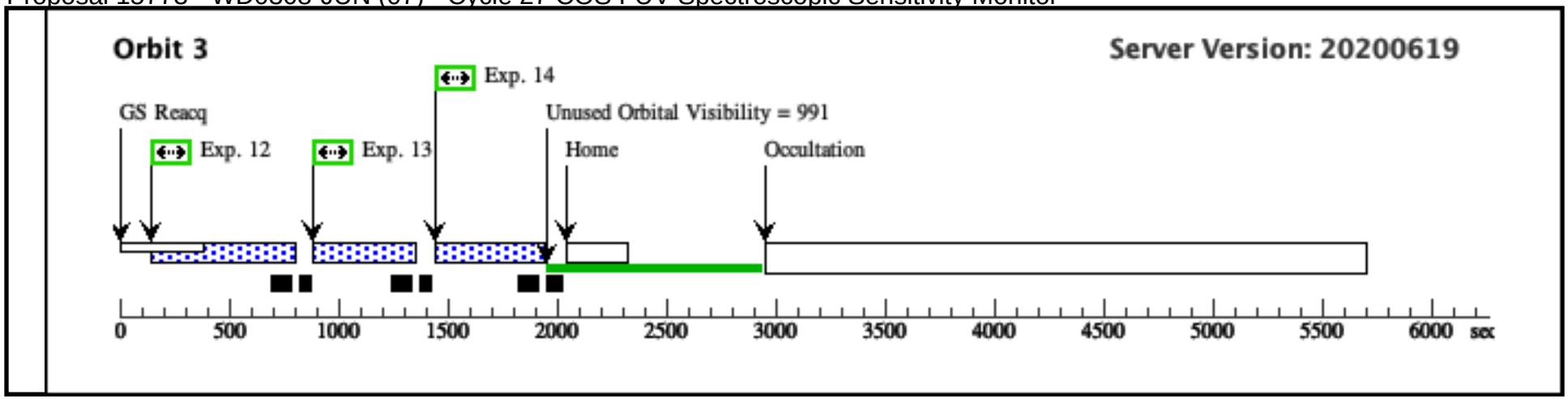
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.

	12	G140L/800/ FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	363 Secs (363 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 263* *Continue use of 1 FP-POS*						
	13	G140L/1105 /FUVA (COS.sp.1021720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*						
	14	G130M/1327/FUVA (COS.sp.1021693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*						

Orbit Structure



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Exp. 14
GS Reacq
Unused Orbital Visibility = 991
Exp. 12
Exp. 13
Home
Occultation
0
500
1000
1500
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2500
3000
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sec

Visit

Proposal 15773, WD0308-JUN-RPT (57), completed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: This is a repeat of the last three exposures of the WD0308-565 sequence, which failed in visit 07.
The between requirement has been removed, with the understanding that this will be scheduled as soon as possible.

(All G160M observations are with SEGMENT = B (i.e. segment A is turned off) for all other WD0308-565 visits.
However, for the June visit, since GD71 is not available, we use SEGMENT = BOTH to keep track of the segment A response.)

Fixed Targets

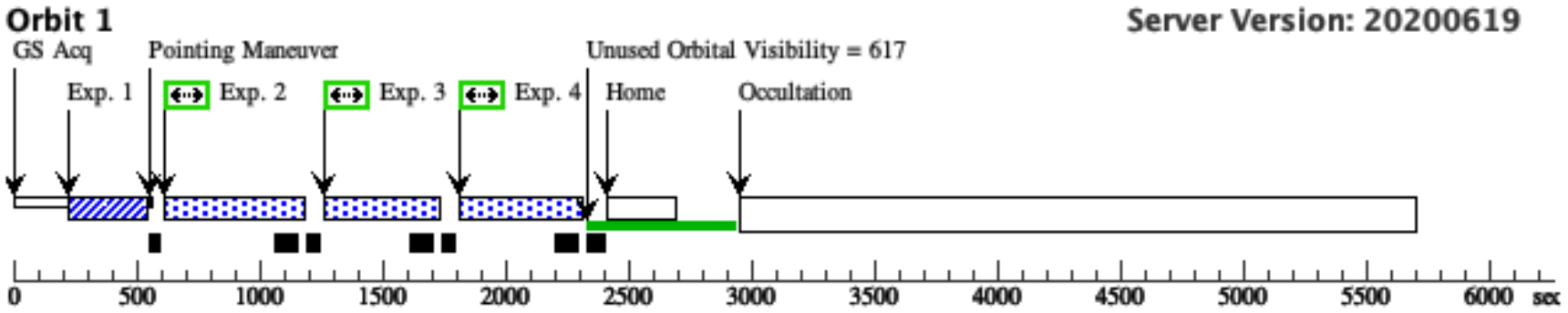
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d) Dec: -56 23 49.41 (-56.39706d) Equinox: J2000	Proper Motion RA: 0.018141 sec of time/yr Proper Motion Dec: 0.0643 arcsec/yr Epoch of Position: 2000	V=14.07+/-0.02	Reference Frame: ICRS

Comments: Coordinates carried over from Cycle 25 proposal
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.									
2	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			363 Secs (363 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 263* *Continue use of 1 FP-POS*									
3	G140L/1105/FUVA (COS.sp.1021720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			327 Secs (327 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*									
4	G130M/1327/FUVA (COS.sp.1021693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A			278 Secs (278 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*									

Orbit Structure



Proposal 15773 - WD0308-AUG (08) - Cycle 27 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 15773, WD0308-AUG (08), failed Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 04-AUG-2020:00:00:00 AND 17-AUG-2020:00:00:00

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Coordinates carried over from Cycle 25 proposal
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.									
2	G130M/1055/LP2 (COS.sp.1302752)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			363 Secs (363 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is larger than exptime (1482) *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
3	G130M/1222 (COS.sp.1302754)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=154; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			254 Secs (254 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 395 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 126* *Continue use of 1 FP-POS*									
4	G130M/1291 (COS.sp.1311908)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=133; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			233 Secs (233 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 322 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 144* *Continue use of 1 FP-POS*									
5	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=228; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			328 Secs (328 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 451, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*									
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	G160M/1533/B (COS.sp.1311897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=B		222 Secs (222 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 487, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

8	G160M/1577/B (COS.sp.1311899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=B		273 Secs (273 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 599, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

9	G160M/1623/B (COS.sp.1311901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=B		369 Secs (369 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 799, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 300
Continue use of 1 FP-POS

10		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

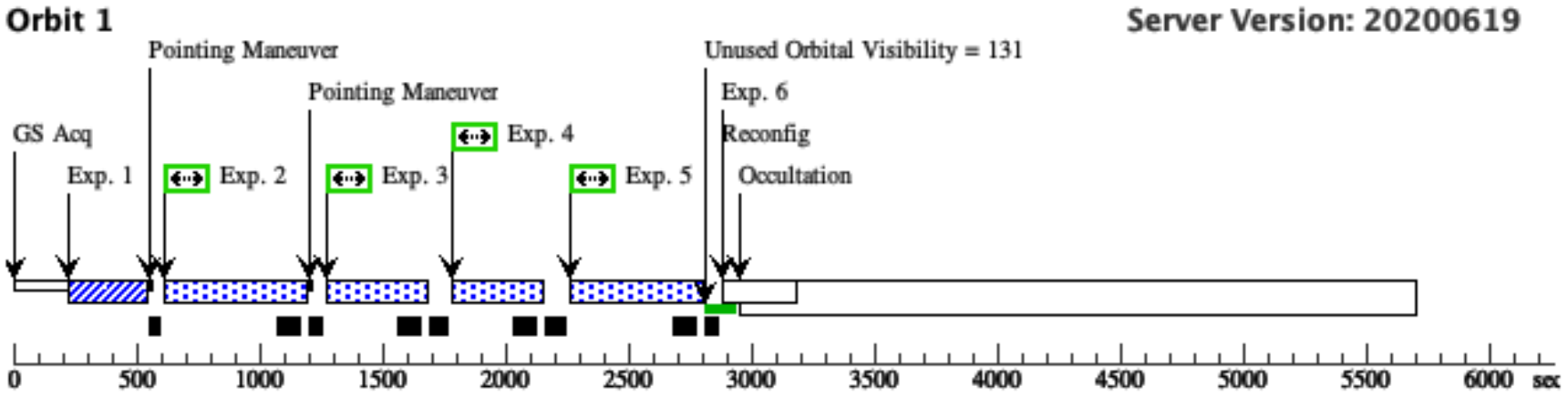
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.

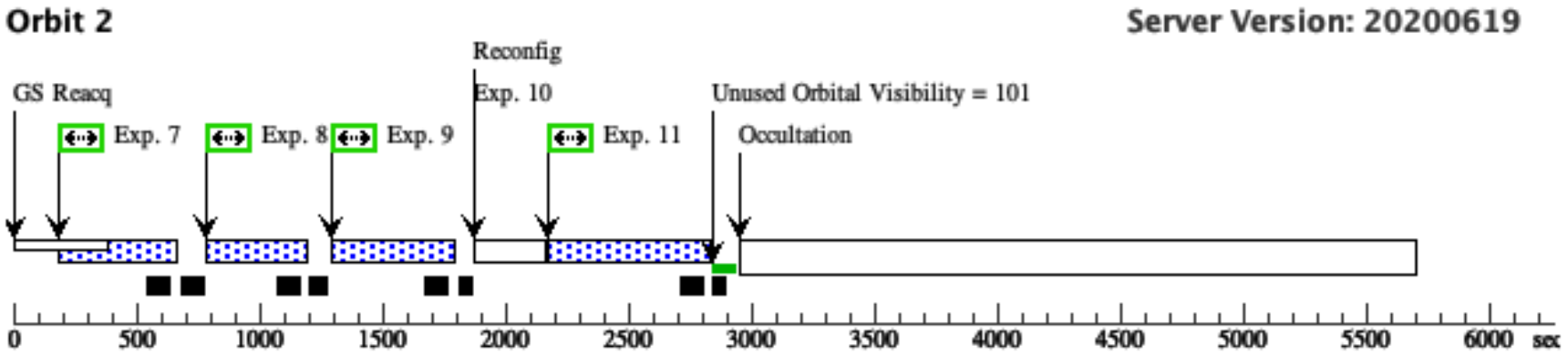
11	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4		363 Secs (363 Secs) *[==>]*	***[2]***

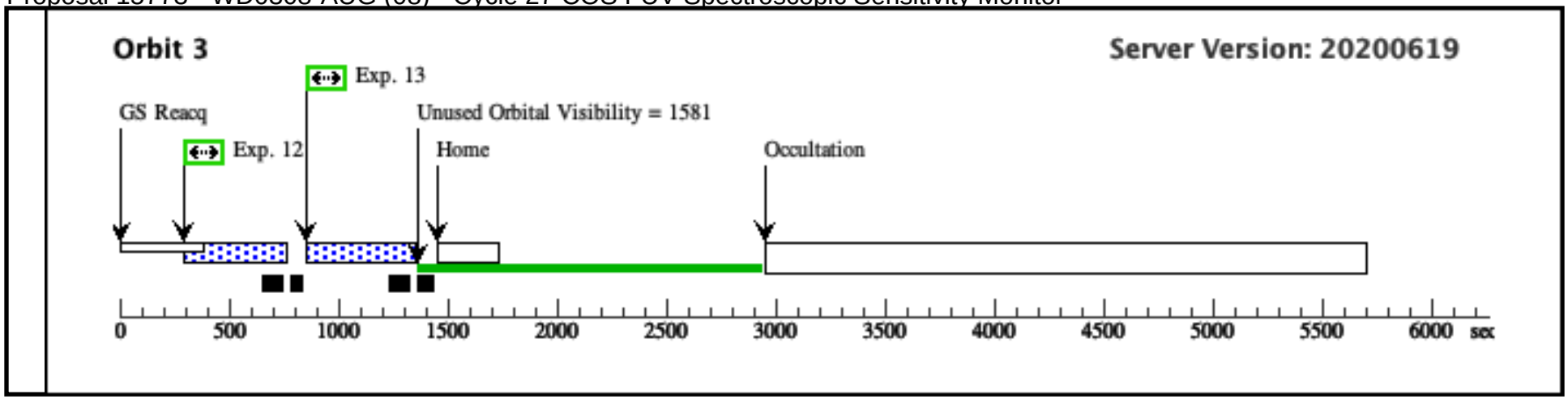
Comments: ETC buffer time is 362, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 263
Continue use of 1 FP-POS

	12	G140L/1105 /FUVA (COS.sp.102 1720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*						
	13	G130M/1327/FUVA (COS.sp.102 1693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*						

Orbit Structure



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Exp. 13
GS Reacq
Unused Orbital Visibility = 1581
Exp. 12
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Occultation
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500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15773, WD0308-AUG (58), implementation Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 31-AUG-2020:00:00:00 AND 07-SEP-2020:00:00:00

Comments: This is a partial repeat of visit 08, in which all exposures after the first orbit failed.
All G160M observations are with SEGMENT = B (i.e. segment A is turned off).

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

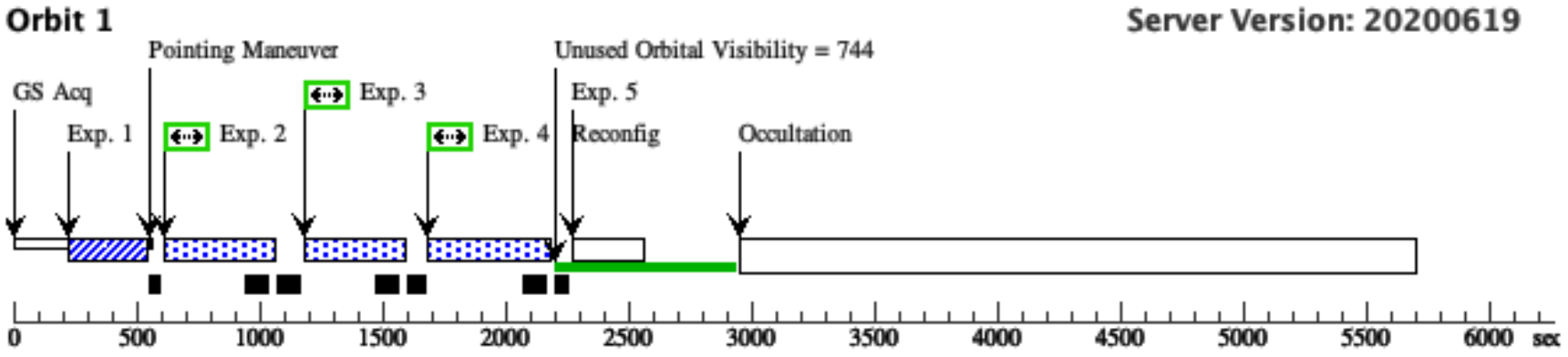
Comments: Coordinates carried over from Cycle 25 proposal
Category=STAR
Description=[DB]
Extended=NO

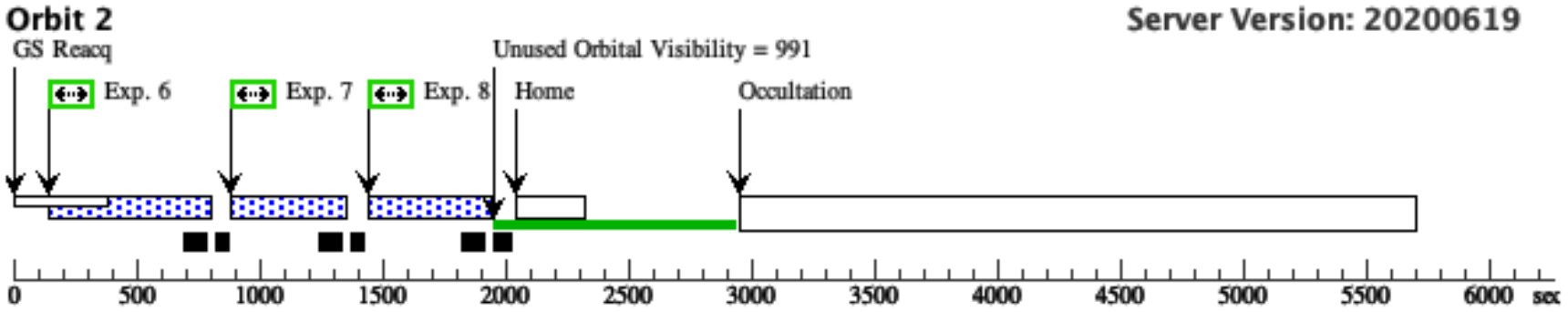
Exposures

#	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.									
2	G160M/1533/B (COS.sp.1311897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=B			222 Secs (222 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 487, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
3	G160M/1577/B (COS.sp.1311899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=B			273 Secs (273 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 599, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
4	G160M/1623/B (COS.sp.1311901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=B			369 Secs (369 Secs) *[==>]*	***[1]***
Comments: ETC buffer time is 799, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 300* *Continue use of 1 FP-POS*									
5		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.									
6	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			363 Secs (363 Secs) *[==>]*	***[2]***
Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 263* *Continue use of 1 FP-POS*									

	7	G140L/1105 /FUVA (COS.sp.102 1720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*					
	8	G130M/132 7/FUVA (COS.sp.102 1693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*					

Orbit Structure





Proposal 15773 - GD71-AUG (09) - Cycle 27 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 15773, GD71-AUG (09), scheduled Fri Aug 14 17:01:02 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 15-AUG-2020:00:00:00 AND 29-AUG-2020:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
Optimized the exposure time for the G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
Carried over from Cycle 25 proposal.
Category=STAR
Description=[DA]
Extended=NO

Exposures

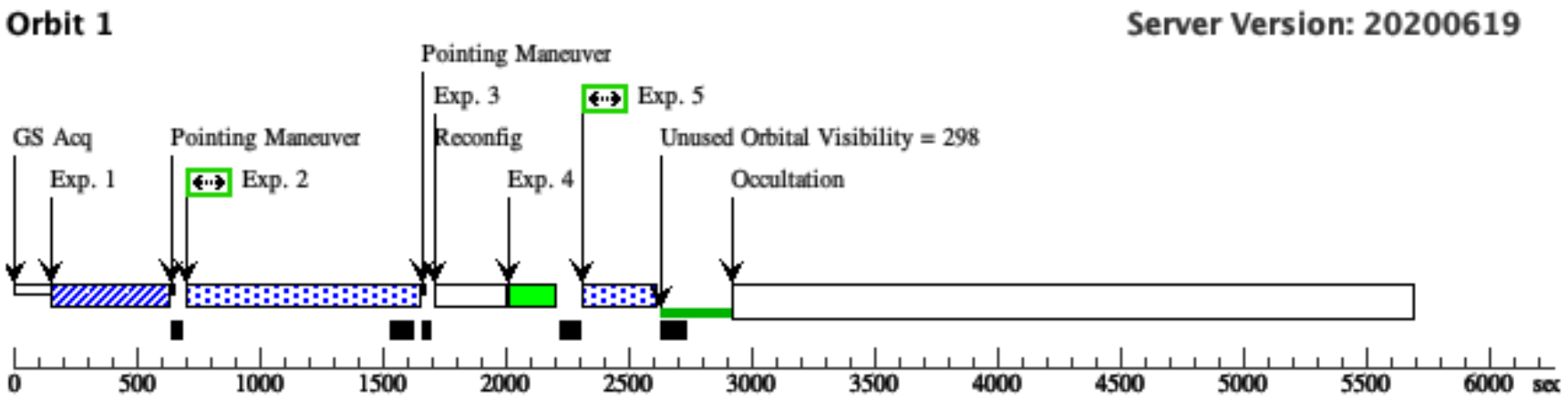
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.839574)	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) *[==>]*	***[1]***
Comments: Exptime for S/N of 60 is 105.5 sec, using 90 sec leads to S/N of 55.									
2	G130M/1096/FUVB/LP2 (COS.sp.839576)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=644; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			744 Secs (744 Secs) *[==>]*	***[1]***
Comments: FUVB only (all ETC warnings come from FUVA). *Set buffer-time = exptime - 100 sec = 644 to maximize time on target.*									
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			140 Secs (140 Secs) *[==>]*	***[1]***
5	G160M/1533/FUVA (COS.sp.131 1884)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=103; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			103 Secs (103 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									
6	G160M/1577/FUVA (COS.sp.131 1885)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=132; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			132 Secs (132 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									

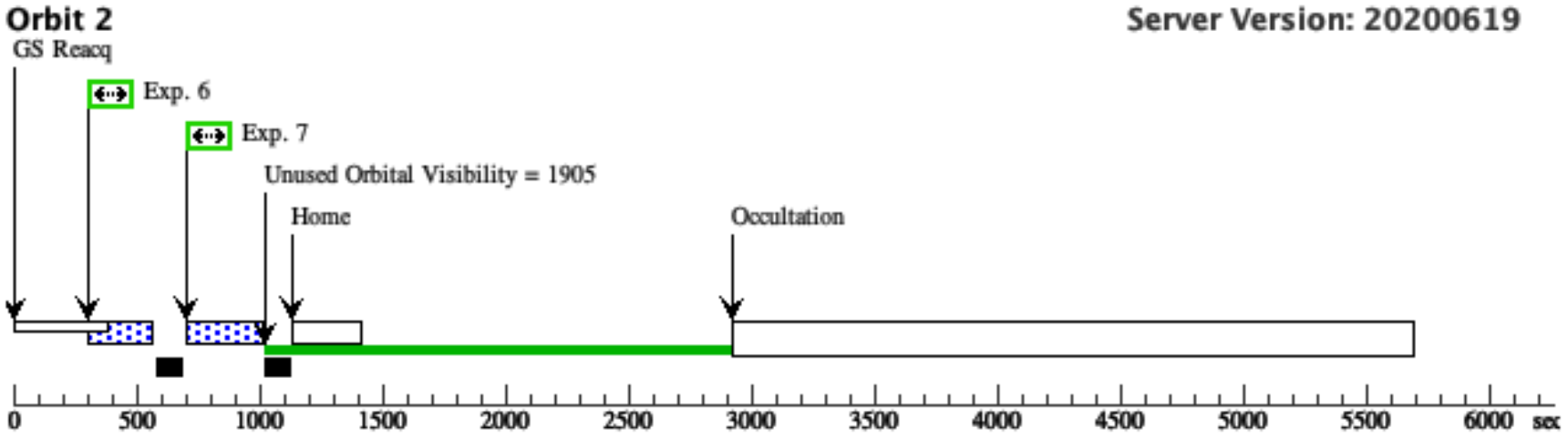
7	G160M/162 3/FUVA (COS.sp.131 1886)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=172; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	172 Secs (172 Secs) *[==>]*	*[2]*

Comments: FUVA only (all ETC warnings come from FUVB).

Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.
2.35e6 is the number of events that each buffer can record
6513 cts/sec is the count rate in FUVA, per ETC calculation above
Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime

Orbit Structure





Visit

Proposal 15773, WD0308-OCT (10), scheduling Fri Aug 14 17:01:03 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 06-OCT-2020:00:00:00 AND 19-OCT-2020:00:00:00

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

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Coordinates carried over from Cycle 25 proposal
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.									
2	G130M/1055/LP2 (COS.sp.1302752)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			363 Secs (363 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is larger than exptime (1482) *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100* *Continue use of 1 FP-POS*									
3	G130M/1222 (COS.sp.1302754)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=154; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			254 Secs (254 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 395 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 126* *Continue use of 1 FP-POS*									
4	G130M/1291 (COS.sp.1311908)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=133; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			233 Secs (233 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 322 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 144* *Continue use of 1 FP-POS*									
5	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=228; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			328 Secs (328 Secs) *[==>]*	 ***[1]***
Comments: ETC buffer time is 451, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*									
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	G160M/1533/B (COS.sp.1311897)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; BUFFER-TIME=122; LIFETIME-POS=LP4; SEGMENT=B		222 Secs (222 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 487, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

8	G160M/1577/B (COS.sp.1311899)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=173; LIFETIME-POS=LP4; SEGMENT=B		273 Secs (273 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 599, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100

Continue use of 1 FP-POS

9	G160M/1623/B (COS.sp.1311901)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=269; LIFETIME-POS=LP4; SEGMENT=B		369 Secs (369 Secs) *[==>]*	***[2]***

Comments: ETC buffer time is 799, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 300
Continue use of 1 FP-POS

10		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

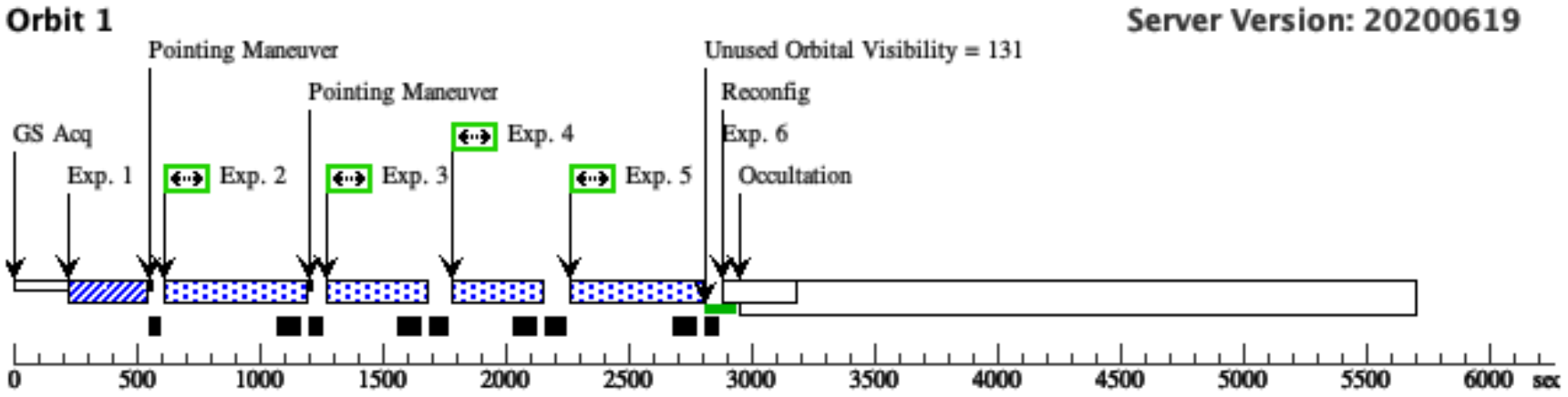
Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps.

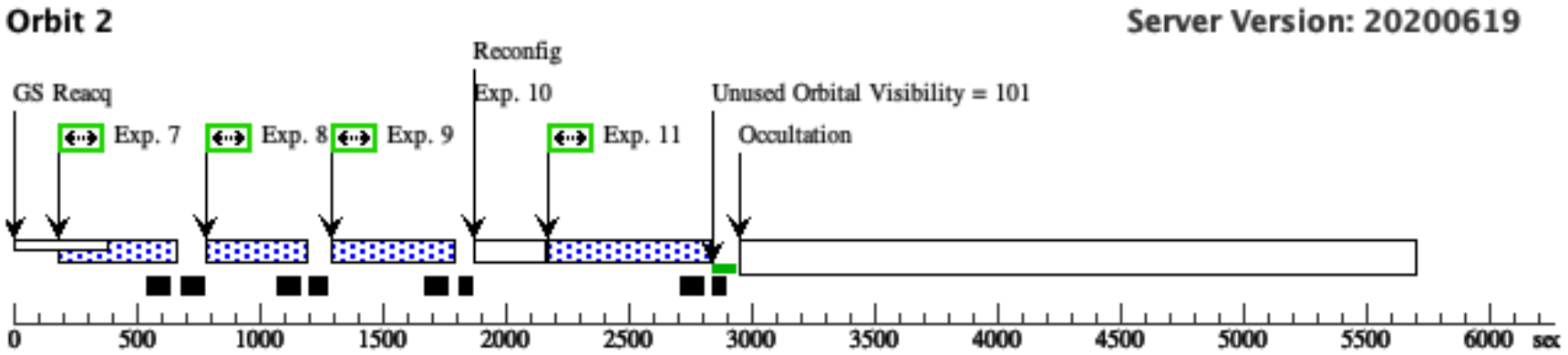
11	G140L/800/FUVA (COS.sp.1302815)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 800 A	BUFFER-TIME=263; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4		363 Secs (363 Secs) *[==>]*	***[2]***

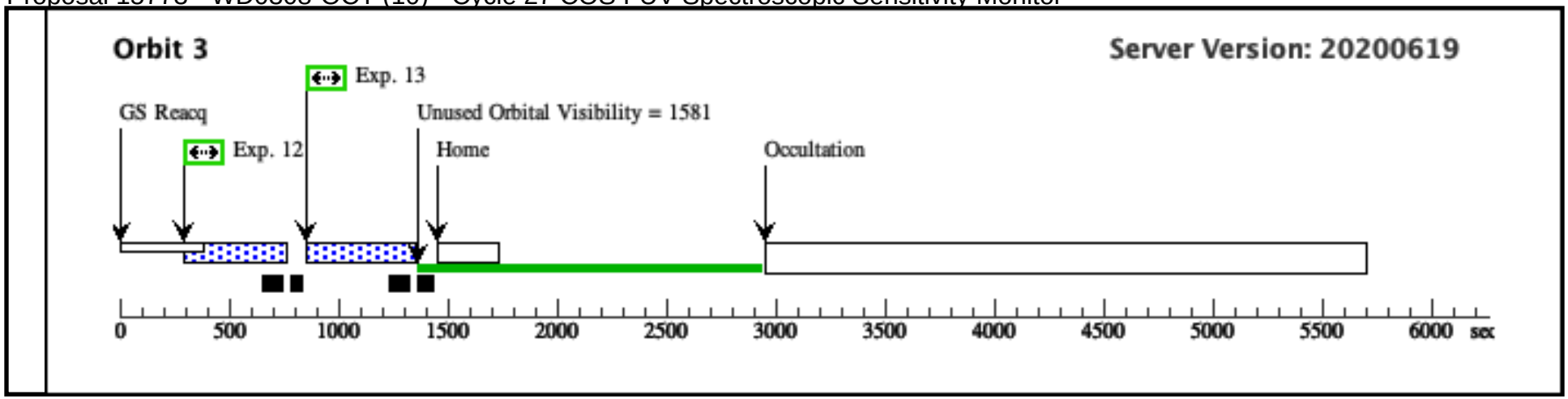
Comments: ETC buffer time is 362, larger than exptime
Target has been observed before no need to 2/3 factor
Set buffer time = exptime - 100 = 263
Continue use of 1 FP-POS

	12	G140L/1105 /FUVA (COS.sp.102 1720)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=227; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	327 Secs (327 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 362, larger than exptime *Target has been observed before no need to 2/3 factor* *Set buffer time = exptime - 100 = 180* *Continue use of 1 FP-POS*						
	13	G130M/1327/FUVA (COS.sp.102 1693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=A	278 Secs (278 Secs) *[==>]*	***[3]***
		Comments: ETC buffer time is 320 sec. Target has been observed before and so no need for 2/3 safety margin. *Since buffer time larger than exptime use buffer time = exptime -100 sec to maximize time on target = 212* *Continue use of 1 FP-POS*						

Orbit Structure



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Occultation
0
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1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Proposal 15773 - GD71-OCT (11) - Cycle 27 COS FUV Spectroscopic Sensitivity Monitor

Visit

Proposal 15773, GD71-OCT (11), scheduling Fri Aug 14 17:01:03 GMT 2020

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 16-OCT-2020:00:00:00 AND 29-OCT-2020:00:00:00

Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation
George Chapman added Exposure 3
Optimized the exposure time for the G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
Carried over from Cycle 25 proposal.
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.									
2	G130M/1096/FUVB/LP2 (COS.sp.839576)	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=644; FP-POS=3; SEGMENT=B; LIFETIME-POS=LP2			744 Secs (744 Secs) *[==>]*	***[1]***
Comments: FUVB only (all ETC warnings come from FUVA). *Set buffer-time = exptime - 100 sec = 644 to maximize time on target.*									
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			140 Secs (140 Secs) *[==>]*	***[1]***
5	G160M/1533/FUVA (COS.sp.1311884)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=103; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			103 Secs (103 Secs) *[==>]*	***[1]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									
6	G160M/1577/FUVA (COS.sp.1311885)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=132; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			132 Secs (132 Secs) *[==>]*	***[2]***
Comments: FUVA only (all ETC warnings come from FUVB). *Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.* *2.35e6 is the number of events that each buffer can record* *6513 cts/sec is the count rate in FUVA, per ETC calculation above* *Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime*									

7	G160M/162 3/FUVA (COS.sp.131 1886)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=172; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	172 Secs (172 Secs) *[==>]*	*[2]*

Comments: FUVA only (all ETC warnings come from FUVB).

Buffer-time for FUVA is 2.35e6/6513 = 360 sec, which is larger than exp time, so set buffer time to exptime.
2.35e6 is the number of events that each buffer can record
6513 cts/sec is the count rate in FUVA, per ETC calculation above
Set buffer-time = exptime b/c exptime - 100 < 80 which is the minimum exptime

Orbit Structure