15384 - COS FUV Spectroscopic Sensitivity Monitoring

Cycle: 25, 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	2	28-Feb-2019 11:00:28.0	yes
02	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	1	28-Feb-2019 11:00:29.0	yes
03	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:31.0	yes
04	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	1	28-Feb-2019 11:00:32.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
05	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:34.0	yes
55	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:36.0	yes
06	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	1	28-Feb-2019 11:00:37.0	yes
07	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:39.0	yes
08	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:41.0	yes
09	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	1	28-Feb-2019 11:00:43.0	yes
10	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:44.0	yes
11	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	1	28-Feb-2019 11:00:45.0	yes
12	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:47.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
56	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:48.0	yes
57	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:50.0	yes
58	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:51.0	yes
59	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	2	28-Feb-2019 11:00:53.0	yes
13	(2) GD71	COS/FUV COS/NUV	1	28-Feb-2019 11:00:54.0	yes

30 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 3 orbits: a 2 orbit visit (target WD0308-565) that covers
G130M/1055/FUVA,
G130M/1222,

G130M/1291,
G130M/1327/FUVA,
G160M/1577/FUVB,
G160M/1623/FUVB,
G140L/1105/FUVA,
G140L/1280,

and a 1 orbit visit (target GD71) that covers
G130M/1096/FUVB,
G160M/1577/FUVA,
G160M/1623/FUVA.

These comprise the reddest and bluest central wavelengths of each grating with additional coverage of the G130M blue modes. The observations will be done at LP4, except for G130M/1055 and G130M/1096, which will be done at LP2. There will be one additional sequence to verify the sensitivities obtained at LP3, and their zero-points relative to those obtained at LP4. (These are visits 12 and 13.)

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 2017.
- GD71 is unschedulable May-July 2017, and therefore that sequence will consist of only one visit.
- The sequence using LP3 should occur towards the end of the cycle.

Visit

Proposal 15384, WD0308 - Dec complete (01), completed Thu Feb 28 16:00:54 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 26-DEC-2017:00:00:00 AND 08-JAN-2018:00:00:00

Diagnostics

(WD0308 - Dec complete (01)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(WD0308 - Dec complete (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WD0308 - Dec complete (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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 from Charle's 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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			176 Secs (254 Secs) *[==>254.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.* *We have generally used the newly calculated values and allowed the orbit planner to adjust durations.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			231 Secs (309 Secs) *[==>309.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.* *We have generally used the newly calculated values and allowed the orbit planner to adjust durations.*								
4	G130M/1055/LP2 (COS.sp.1021696)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=185; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			285 Secs (363 Secs) *[==>363.0 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 = 224* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *While the program is optimized for FUVA we use the low SNR FUVB data to constraint the blue edge of the wavelength range.* *Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.* *We have generally used the newly calculated values and allowed the orbit planner to adjust durations.*								

5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP4; SEGMENT=BOTH		264 Secs (342 Secs) *[==>342.0 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 = 190

Continue use of 1 FP-POS

cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.

Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.
We have generally used the newly calculated values and allowed the orbit planner to adjust durations.

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=268; LIFETIME-POS=LP4; SEGMENT=BOTH		368 Secs (416 Secs) *[==>416.0 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

cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.

Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.
We have generally used the newly calculated values and allowed the orbit planner to adjust durations.

7	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 (376 Secs) *[==>376.0 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

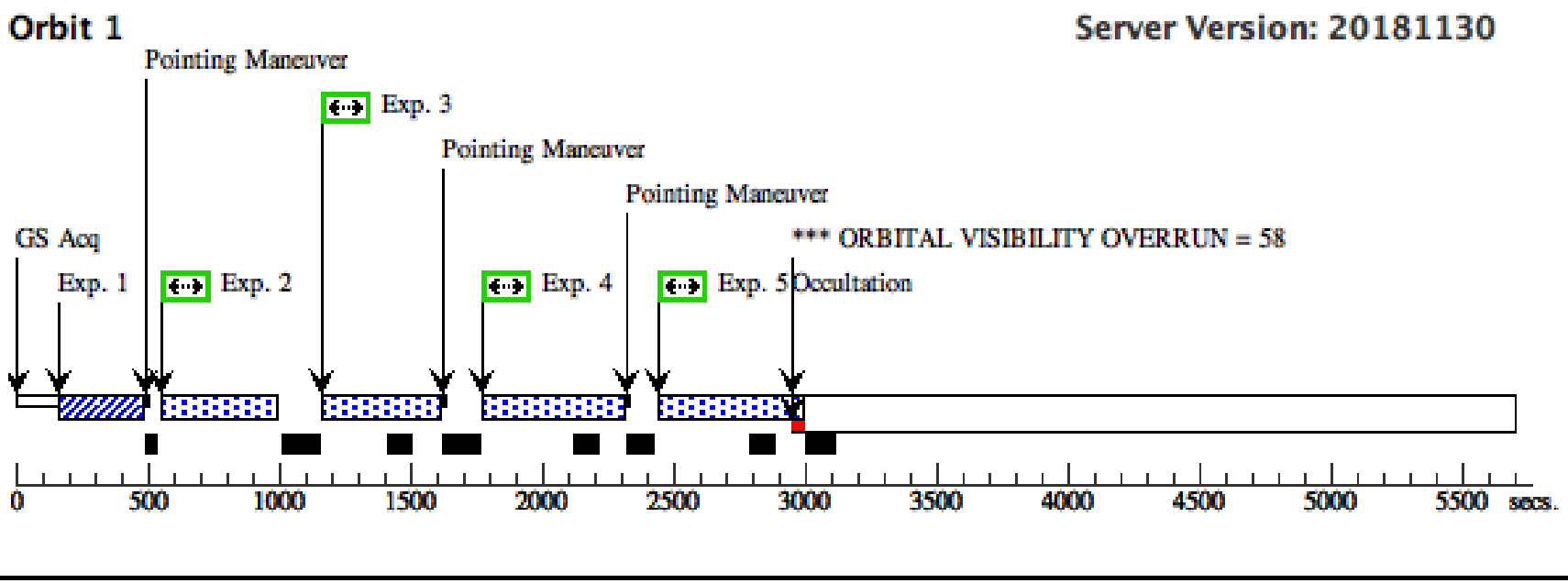
Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.
We have generally used the newly calculated values and allowed the orbit planner to adjust durations.

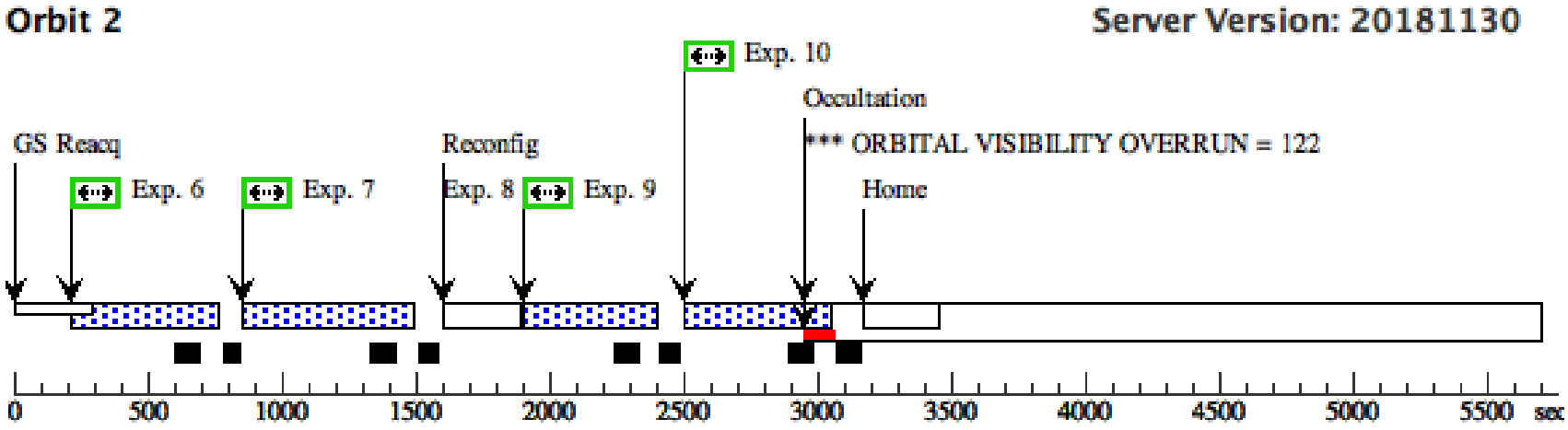
8		DARK	S/C, DATA, NONE			QASISTATES COS FUV HVLOW HVLOW	1 Secs (1 Secs) *[==>]*	***[2]***

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

	9	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 (375 Secs) *[==>375.0 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 = 180* *Continue use of 1 FP-POS* *Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.* *We have generally used the newly calculated values and allowed the orbit planner to adjust durations.*						
	10	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 (326 Secs) *[==>326.0 Secs]*	***[2]***
		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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.* *We have generally used the newly calculated values and allowed the orbit planner to adjust durations.*						

Orbit Structure





Visit

Proposal 15384, GD71 - Dec complete (02), completed Thu Feb 28 16:00:54 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 26-DEC-2017:00:00:00 AND 08-JAN-2018:00:00:00

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.

Diagnostics

(GD71 - Dec complete (02)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(GD71 - Dec complete (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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.
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 (737 Secs) *[==>737.0 Secs]*	*[1]*
	Comments: FUVB only (all ETC warnings come from FUVA). *Set buffer-time = exptime - 100 sec = 644 to maximize time on target.* *Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.* *We have generally used the newly calculated values and allowed the orbit planner to adjust durations.*								
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/1577/FUVA (COS.sp.1021723)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=111; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			111 Secs (104 Secs) *[==>104.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)* *Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.* *We have generally used the newly calculated values and allowed the orbit planner to adjust durations.*								

6	G160M/162 3/FUVA (COS.sp.102 1734)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=162; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4	162 Secs (155 Secs) *[==>155.0 Secs]*	***[1]***

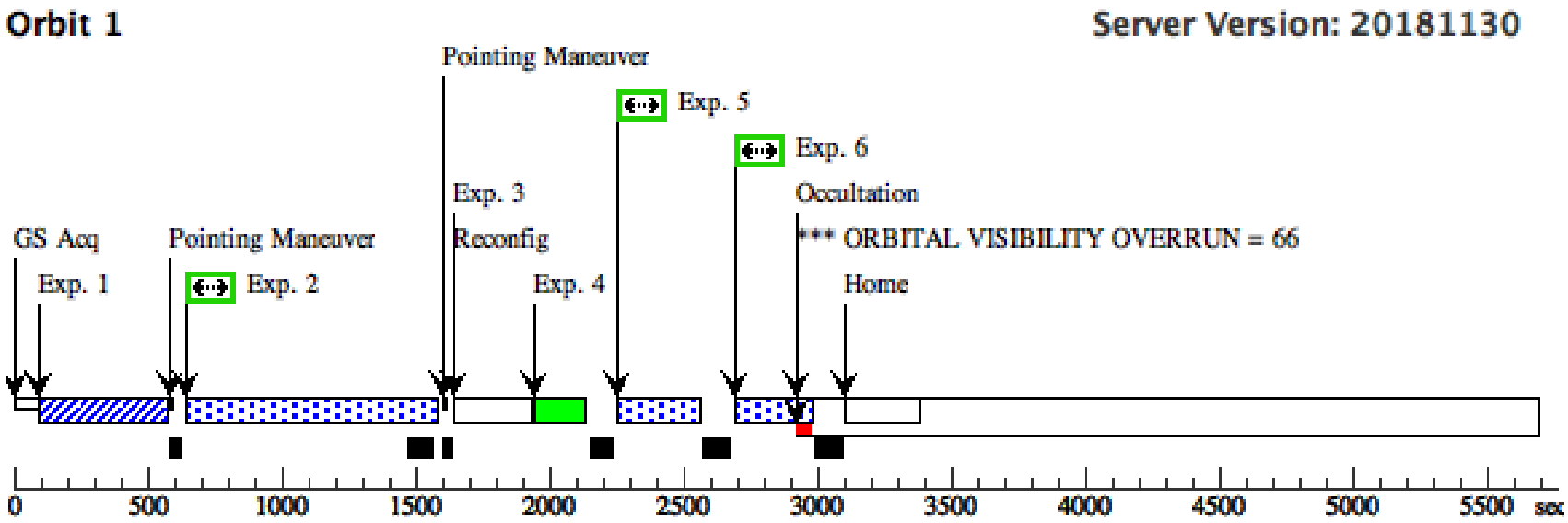
Comments: FUVA only (all ETC warnings come from FUVB).

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

Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)

Cycle 25 comment: the ETC was run for each exposure and the differences compared to Cycle 24 were not significant.
We have generally used the newly calculated values and allowed the orbit planner to adjust durations.

Orbit Structure



Visit

Proposal 15384, WD0308 - Feb complete (03), completed Thu Feb 28 16:00:54 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 20-FEB-2018:00:00:00 AND 26-FEB-2018:00:00:00

Diagnostics

(WD0308 - Feb complete (03)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(WD0308 - Feb complete (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WD0308 - Feb complete (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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		

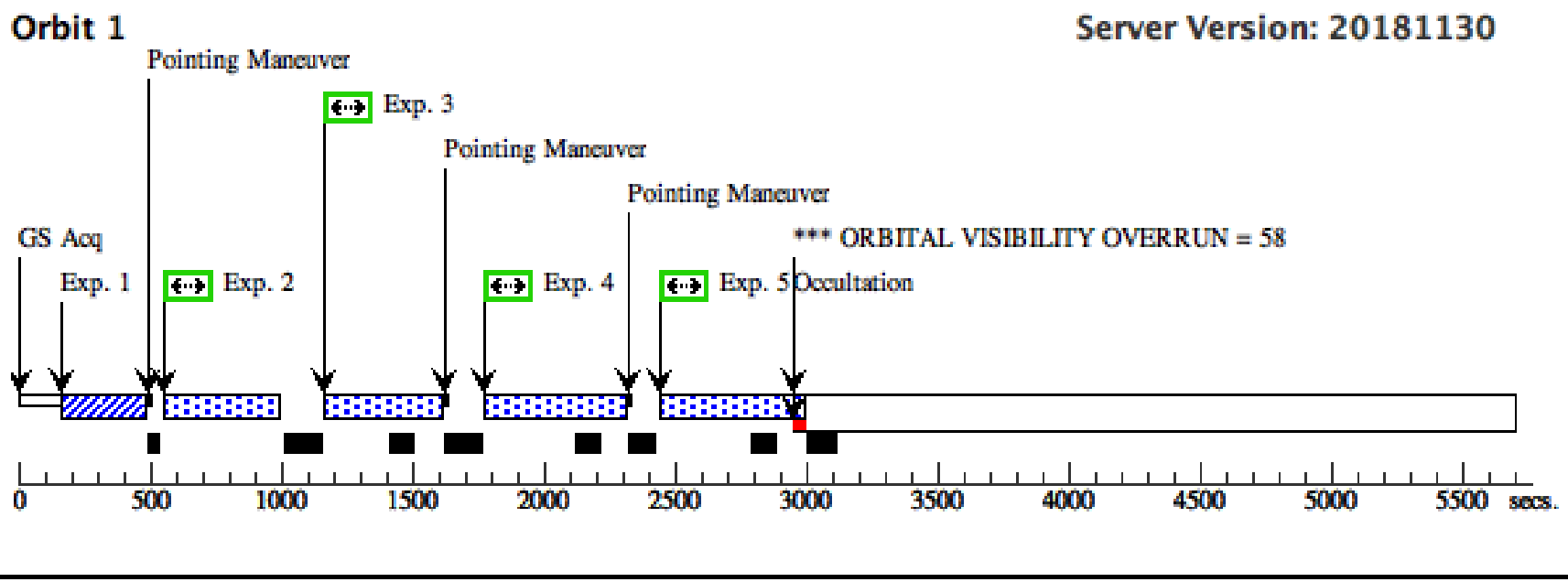
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

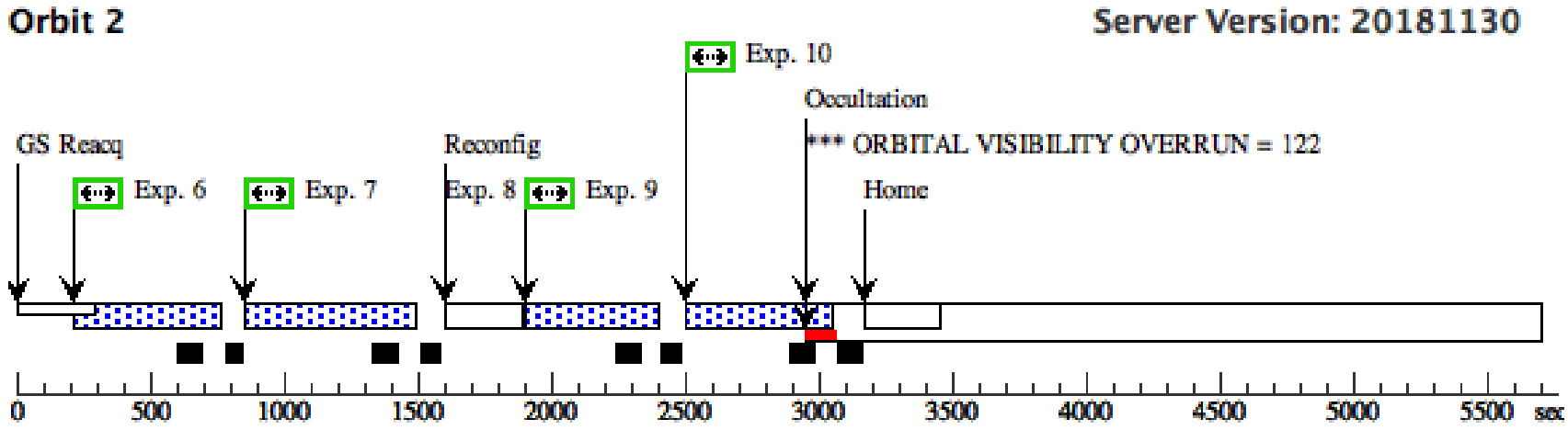
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			176 Secs (254 Secs) *[==>254.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			231 Secs (309 Secs) *[==>309.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1055/LP2 (COS.sp.1021696)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=185; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			285 Secs (363 Secs) *[==>363.0 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 = 224* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *While the program is optimized for FUVA we use the low SNR FUVB data to constraint the blue edge of the wavelength range.*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP4; SEGMENT=BOTH			264 Secs (342 Secs) *[==>342.0 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=268; LIFETIME-POS=LP4; SEGMENT=BOTH		368 Secs (416 Secs) *[==>416.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	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 (376 Secs) *[==>376.0 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		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.								
9	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 (375 Secs) *[==>375.0 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 = 180* *Continue use of 1 FP-POS*								
10	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 (326 Secs) *[==>326.0 Secs]*	***[2]***
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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

Orbit Structure





Proposal 15384 - GD71 - Feb complete (04) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, GD71 - Feb complete (04), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 20-FEB-2018:00:00:00 AND 26-FEB-2018:00:00:00

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.

Diagnostics

(GD71 - Feb complete (04)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(GD71 - Feb complete (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

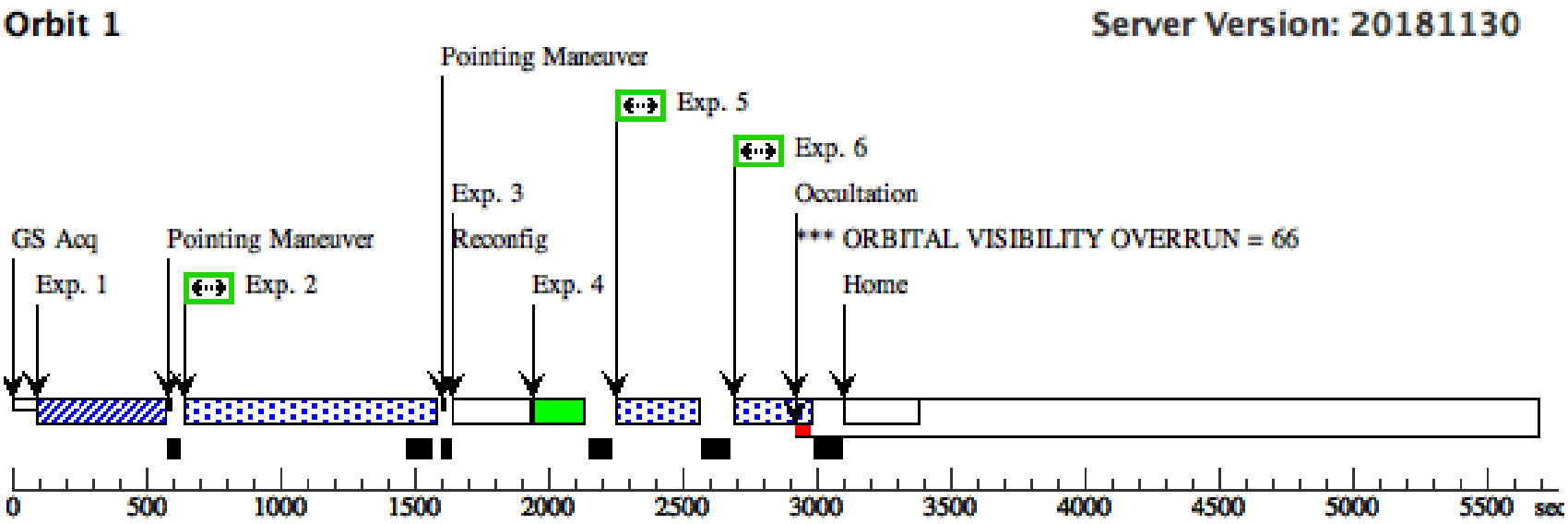
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
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 (737 Secs) *[==>737.0 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/1577/FUVA (COS.sp.1021723)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=111; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			111 Secs (104 Secs) *[==>104.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									
6	G160M/1623/FUVA (COS.sp.1021734)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=162; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			162 Secs (155 Secs) *[==>155.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									

Orbit Structure



Visit

Proposal 15384, WD0308 - Apr complete (05), failed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 10-APR-2018:00:00:00 AND 23-APR-2018:00:00:00

Diagnostics

(WD0308 - Apr complete (05)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(WD0308 - Apr complete (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WD0308 - Apr complete (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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		

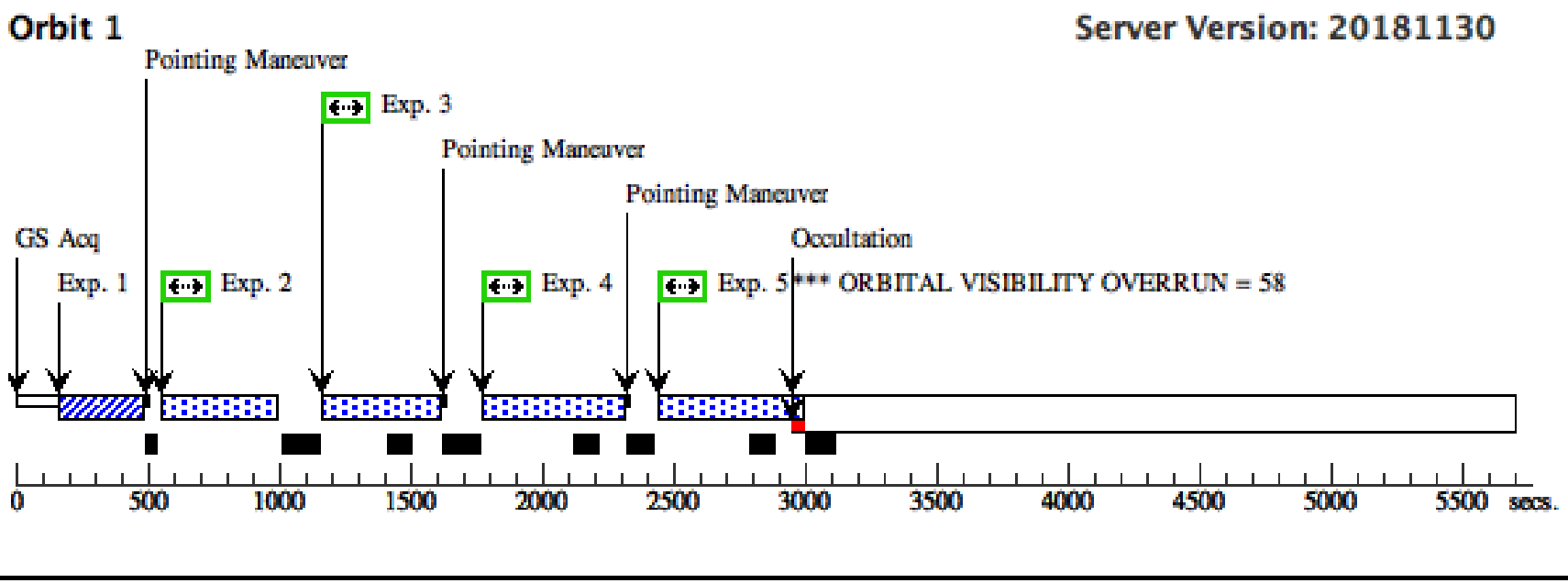
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

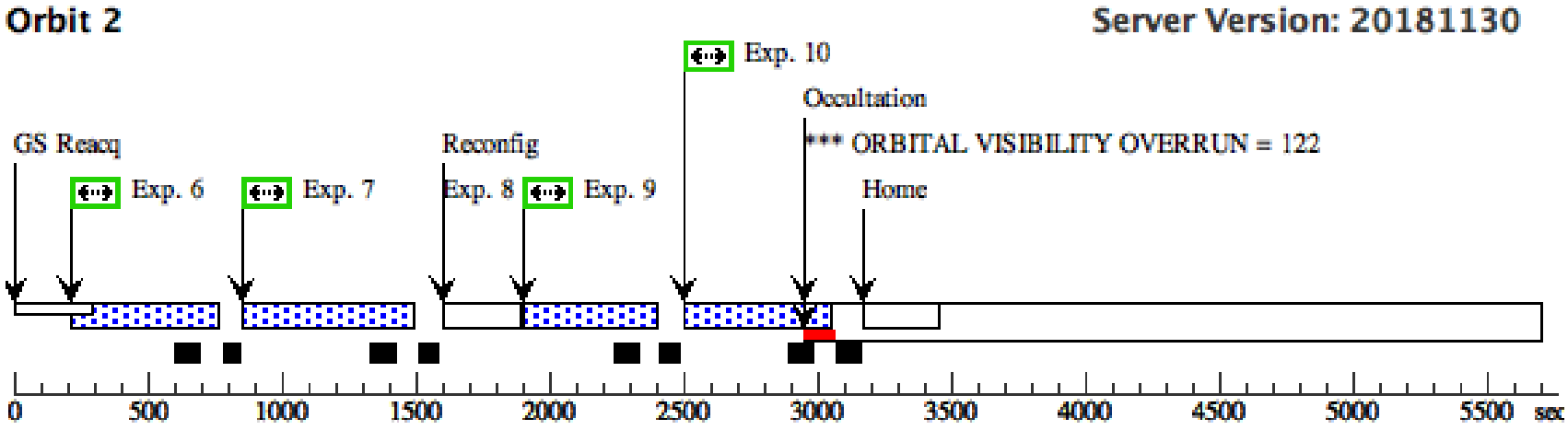
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			176 Secs (254 Secs) *[==>254.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			231 Secs (309 Secs) *[==>309.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1055/LP2 (COS.sp.1021696)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=185; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			285 Secs (363 Secs) *[==>363.0 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 = 224* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *While the program is optimized for FUVA we use the low SNR FUVB data to constraint the blue edge of the wavelength range.*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP4; SEGMENT=BOTH			264 Secs (342 Secs) *[==>342.0 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=268; LIFETIME-POS=LP4; SEGMENT=BOTH		368 Secs (416 Secs) *[==>416.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	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 (376 Secs) *[==>376.0 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		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.								
9	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 (375 Secs) *[==>375.0 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 = 180* *Continue use of 1 FP-POS*								
10	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 (326 Secs) *[==>326.0 Secs]*	***[2]***
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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

Orbit Structure





Proposal 15384 - WD0308 - Apr complete (55) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, WD0308 - Apr complete (55), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 07-MAY-2018:00:00:00 AND 13-MAY-2018:00:00:00

Diagnostics

(WD0308 - Apr complete (55)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(WD0308 - Apr complete (55)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WD0308 - Apr complete (55)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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		

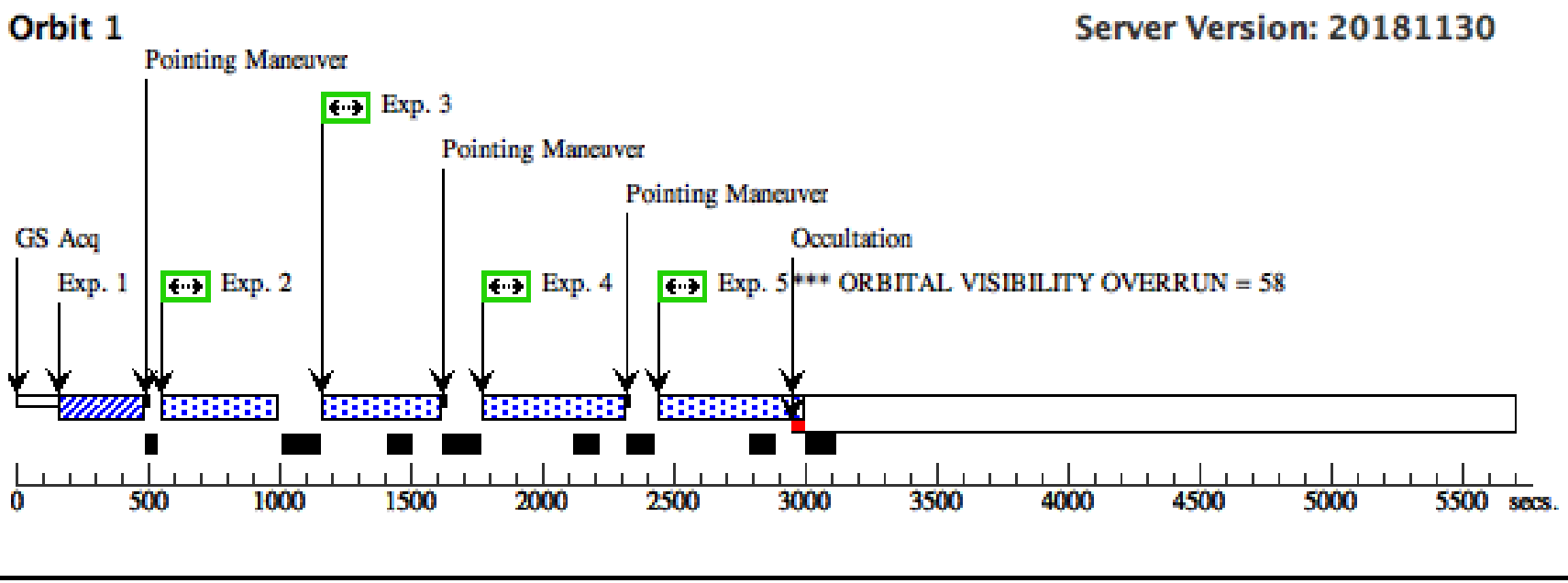
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

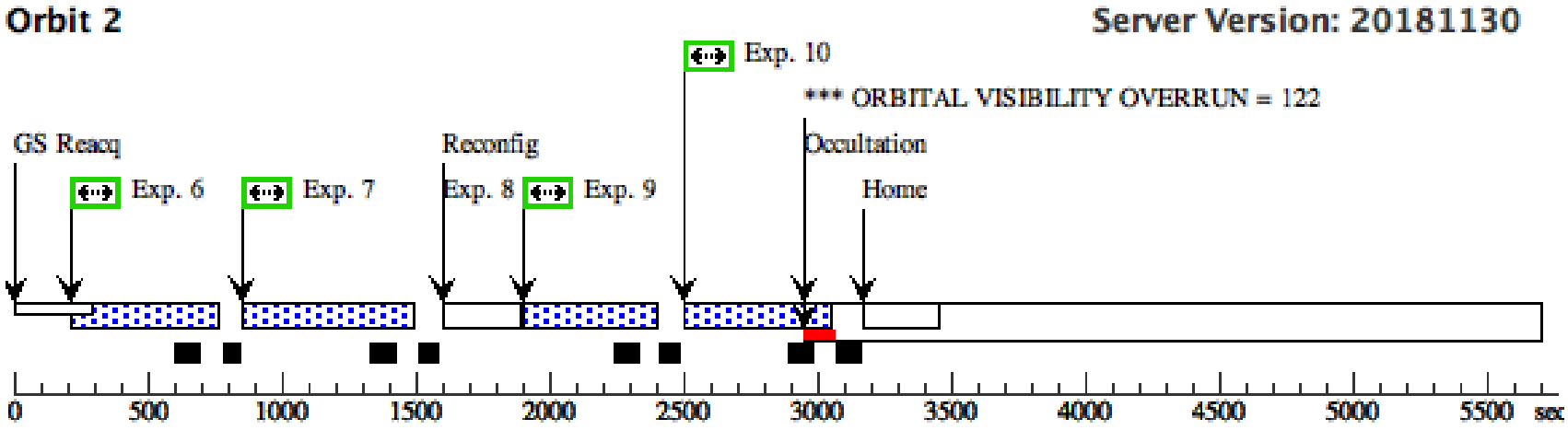
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			176 Secs (254 Secs) *[==>254.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			231 Secs (309 Secs) *[==>309.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1055/LP2 (COS.sp.1021696)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=185; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			285 Secs (363 Secs) *[==>363.0 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 = 224* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *While the program is optimized for FUVA we use the low SNR FUVB data to constraint the blue edge of the wavelength range.*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP4; SEGMENT=BOTH			264 Secs (342 Secs) *[==>342.0 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=268; LIFETIME-POS=LP4; SEGMENT=BOTH		368 Secs (416 Secs) *[==>416.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	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 (376 Secs) *[==>376.0 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		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.								
9	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 (375 Secs) *[==>375.0 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 = 180* *Continue use of 1 FP-POS*								
10	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 (326 Secs) *[==>326.0 Secs]*	***[2]***
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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

Orbit Structure





Proposal 15384 - GD71 - Apr complete (06) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, GD71 - Apr complete (06), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 10-APR-2018:00:00:00 AND 23-APR-2018:00:00:00

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.

Diagnostics

(GD71 - Apr complete (06)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(GD71 - Apr complete (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

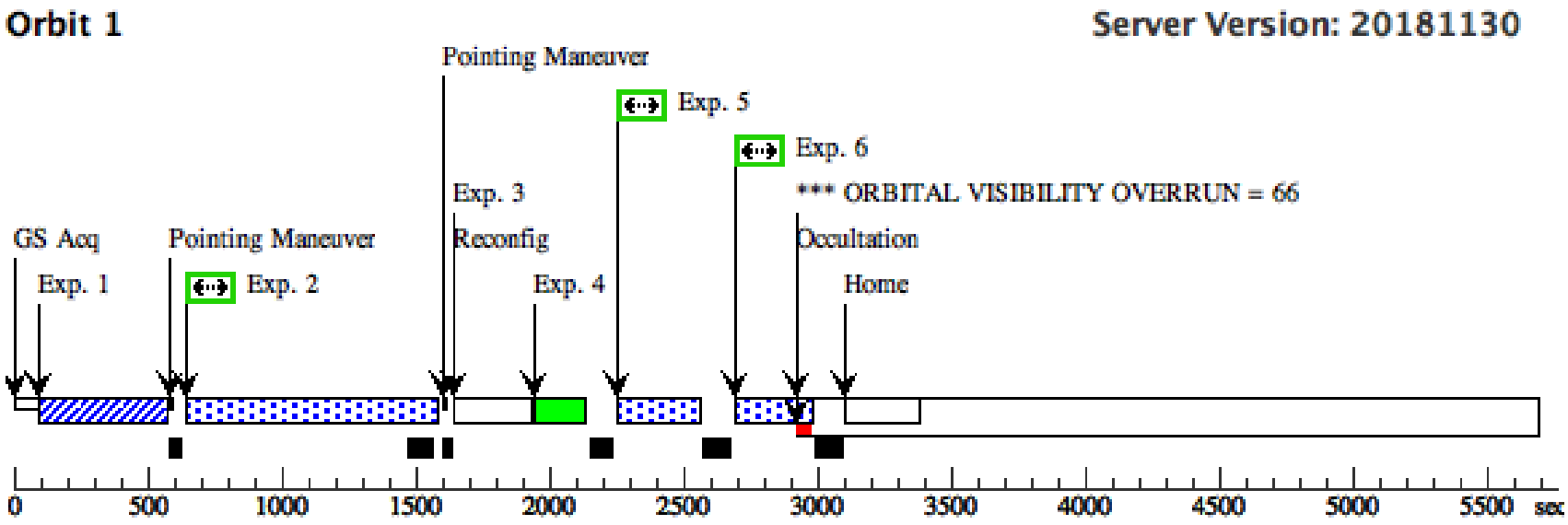
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
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 (737 Secs) *[==>737.0 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/1577/FUVA (COS.sp.1021723)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=111; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			111 Secs (104 Secs) *[==>104.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									
6	G160M/1623/FUVA (COS.sp.1021734)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=162; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			162 Secs (155 Secs) *[==>155.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									

Orbit Structure



Proposal 15384 - WD0308 - Jun complete (07) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, WD0308 - Jun complete (07), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 05-JUN-2018:00:00:00 AND 18-JUN-2018:00:00:00

Diagnostics

(WD0308 - Jun complete (07)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(WD0308 - Jun complete (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WD0308 - Jun complete (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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		

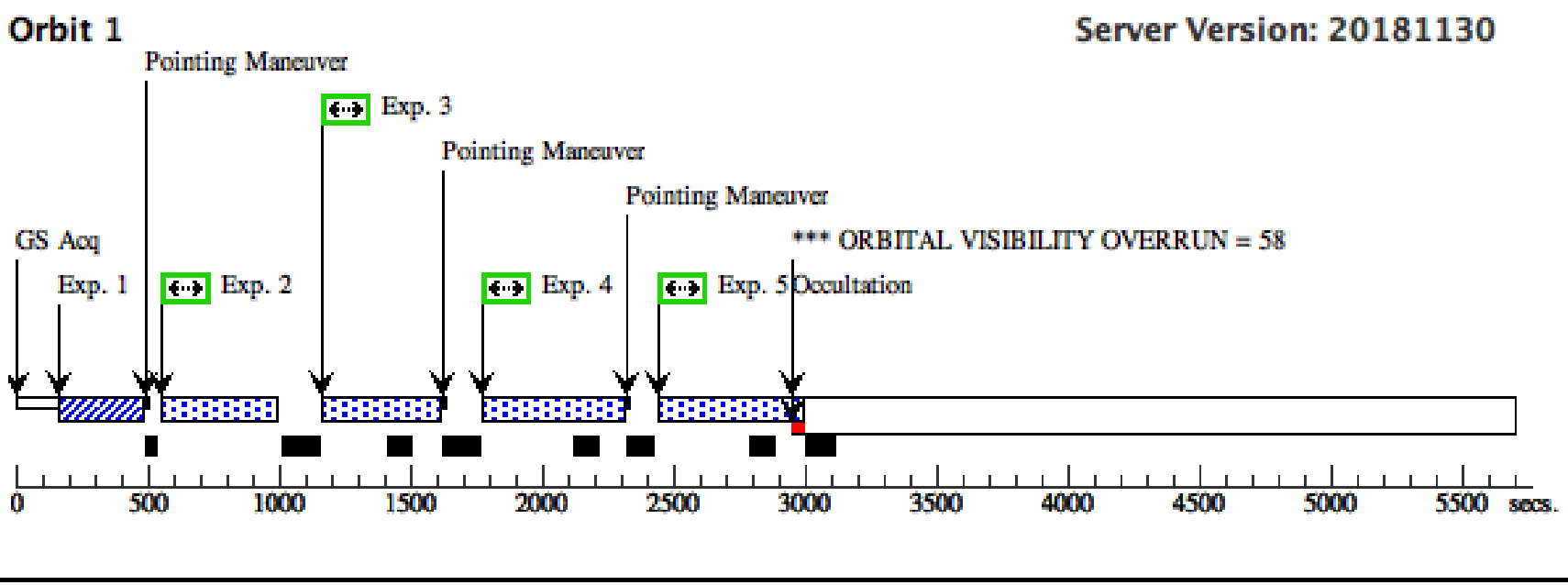
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

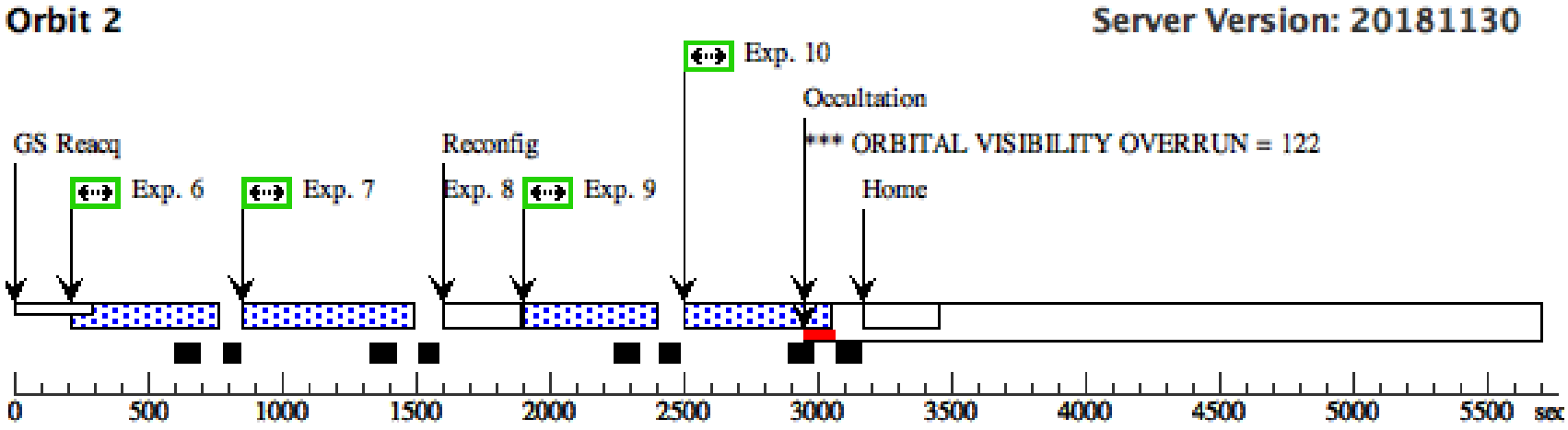
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			176 Secs (254 Secs) *[==>254.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			231 Secs (309 Secs) *[==>309.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1055/LP2 (COS.sp.1021696)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=185; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			285 Secs (363 Secs) *[==>363.0 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 = 224* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *While the program is optimized for FUVA we use the low SNR FUVB data to constraint the blue edge of the wavelength range.*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP4; SEGMENT=BOTH			264 Secs (342 Secs) *[==>342.0 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=268; LIFETIME-POS=LP4; SEGMENT=BOTH		368 Secs (416 Secs) *[==>416.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	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 (376 Secs) *[==>376.0 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		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.								
9	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 (375 Secs) *[==>375.0 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 = 180* *Continue use of 1 FP-POS*								
10	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 (326 Secs) *[==>326.0 Secs]*	***[2]***
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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

Orbit Structure





Visit

Proposal 15384, WD0308 - Aug complete (08), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 14-AUG-2018:00:00:00 AND 27-AUG-2018:00:00:00

Diagnostics

(WD0308 - Aug complete (08)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(WD0308 - Aug complete (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WD0308 - Aug complete (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

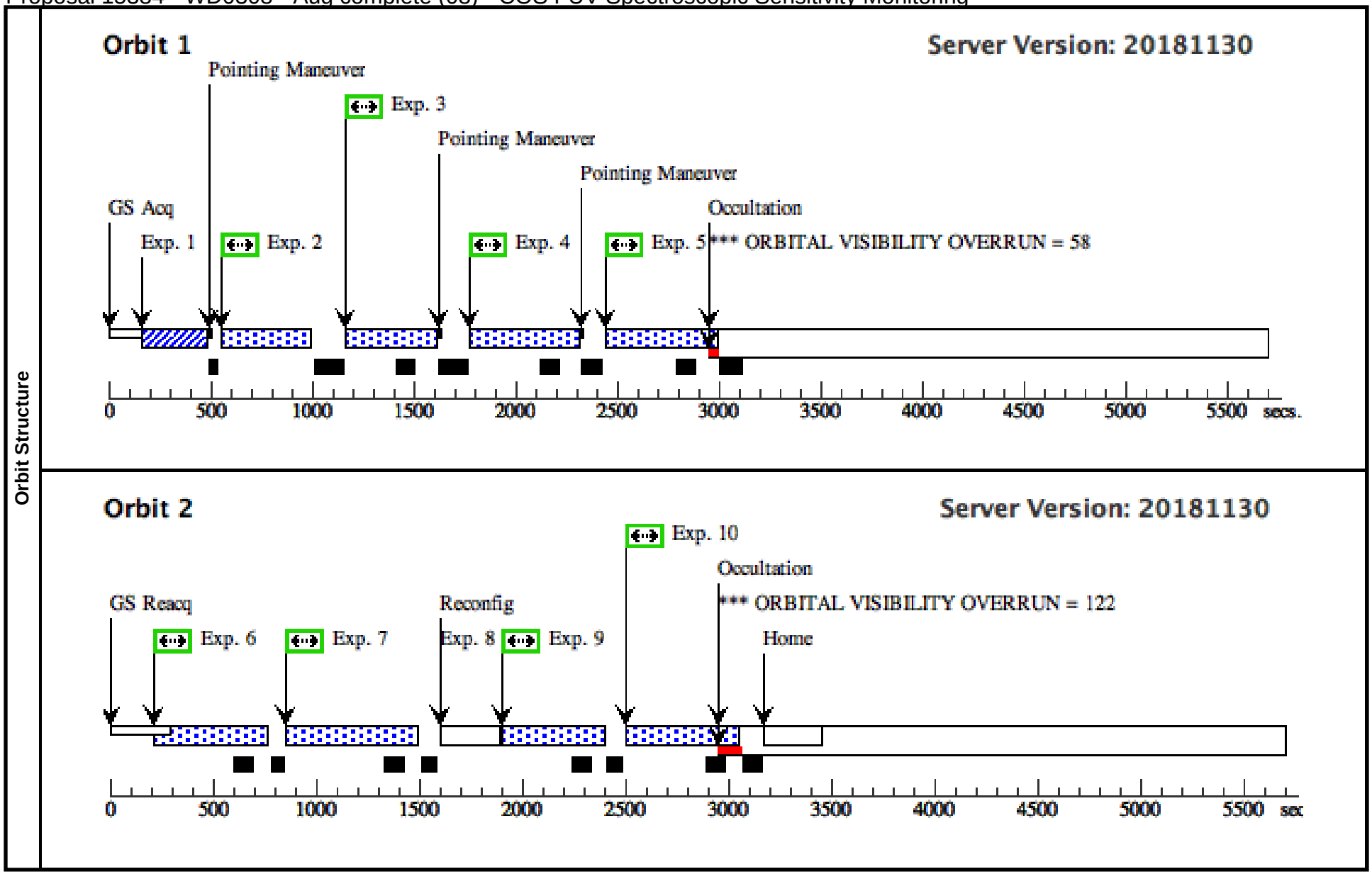
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: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

Comments: Coordinates from Charle's 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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			176 Secs (254 Secs) *[==>254.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			231 Secs (309 Secs) *[==>309.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1055/LP2 (COS.sp.1021696)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=185; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			285 Secs (363 Secs) *[==>363.0 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 = 224* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *While the program is optimized for FUVA we use the low SNR FUVB data to constraint the blue edge of the wavelength range.*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP4; SEGMENT=BOTH			264 Secs (342 Secs) *[==>342.0 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=268; LIFETIME-POS=LP4; SEGMENT=BOTH		368 Secs (416 Secs) *[==>416.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	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 (376 Secs) *[==>376.0 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		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.								
9	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 (375 Secs) *[==>375.0 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 = 180* *Continue use of 1 FP-POS*								
10	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 (326 Secs) *[==>326.0 Secs]*	***[2]***
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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								


Orbit Structure
Orbit 1
Server Version: 20181130
Pointing Maneuver
Exp. 3
Pointing Maneuver
Pointing Maneuver
GS Acq
Occultation
Exp. 1
Exp. 2
Exp. 4
Exp. 5
*** ORBITAL VISIBILITY OVERRUN = 58
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Orbit 2
Server Version: 20181130
Exp. 10
Occultation
GS Reacq
Reconfig
*** ORBITAL VISIBILITY OVERRUN = 122
Exp. 6
Exp. 7
Exp. 8
Exp. 9
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Proposal 15384 - GD71 - Aug complete (09) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, GD71 - Aug complete (09), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 14-AUG-2018:00:00:00 AND 27-AUG-2018:00:00:00

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.

Diagnostics

(GD71 - Aug complete (09)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(GD71 - Aug complete (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

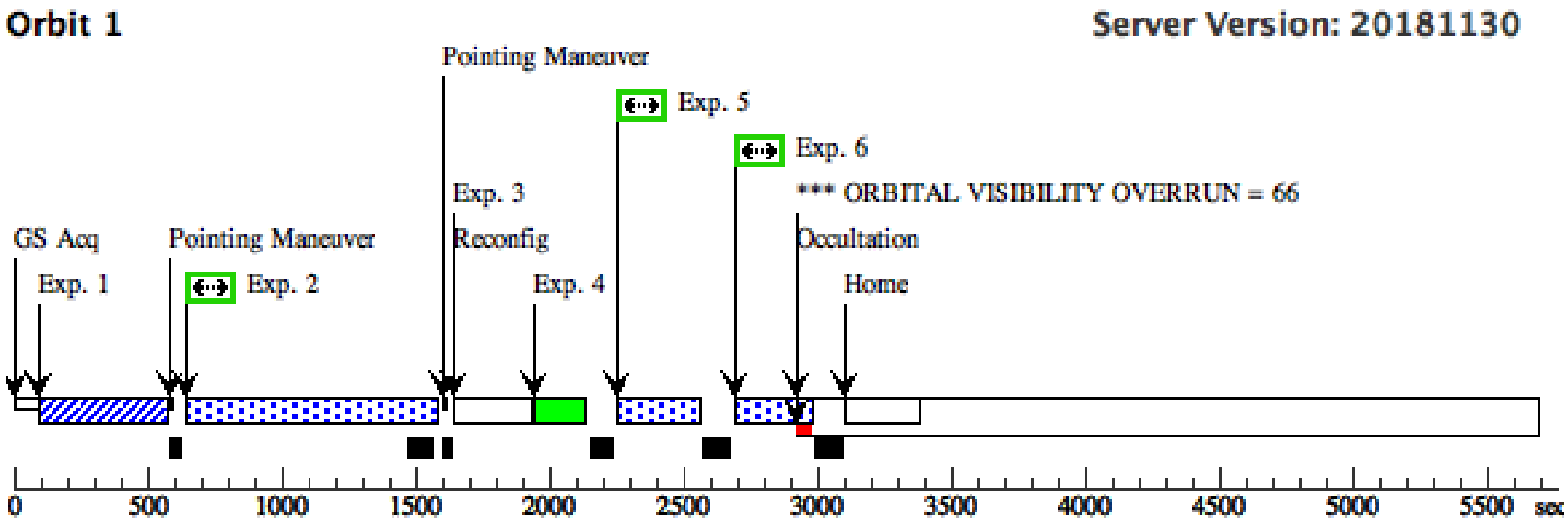
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
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 (737 Secs) *[==>737.0 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/1577/FUVA (COS.sp.1021723)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=111; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			111 Secs (104 Secs) *[==>104.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									
6	G160M/1623/FUVA (COS.sp.1021734)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=162; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			162 Secs (155 Secs) *[==>155.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									

Orbit Structure



Proposal 15384 - WD0308 - Oct complete (10) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, WD0308 - Oct complete (10), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 16-OCT-2018:00:00:00 AND 05-NOV-2018:00:00:00

Diagnostics

(WD0308 - Oct complete (10)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(WD0308 - Oct complete (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WD0308 - Oct complete (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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		

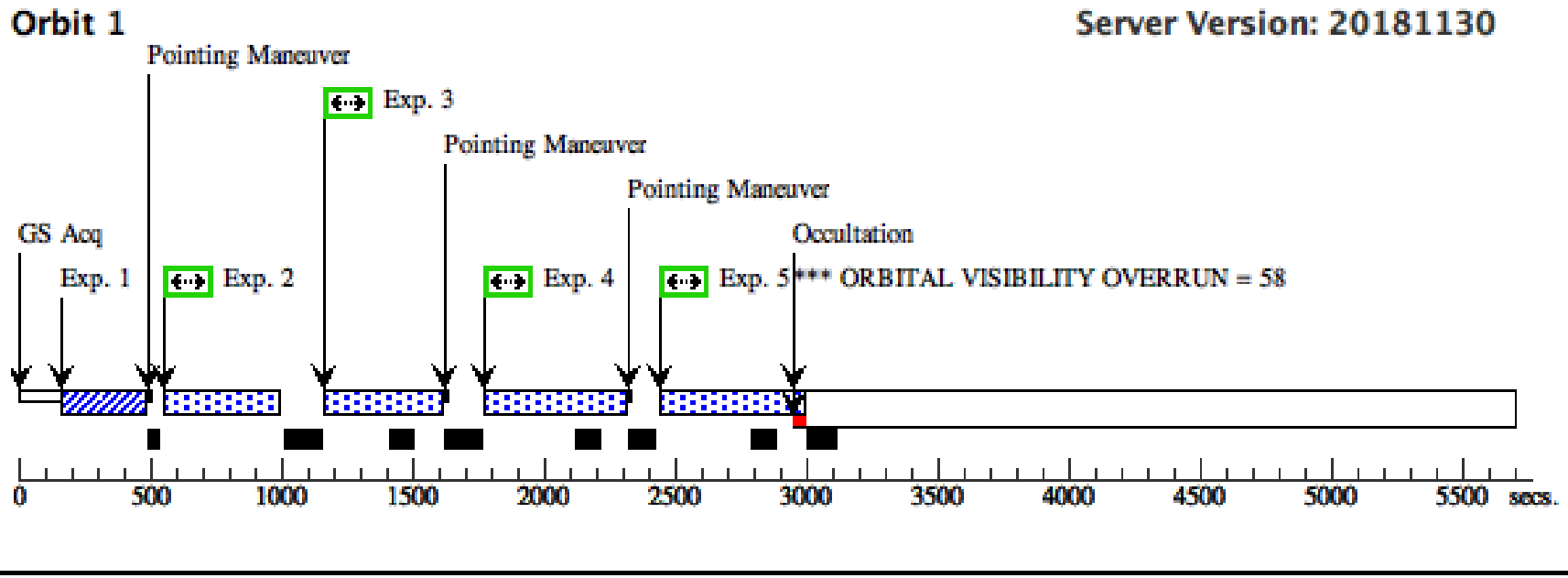
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

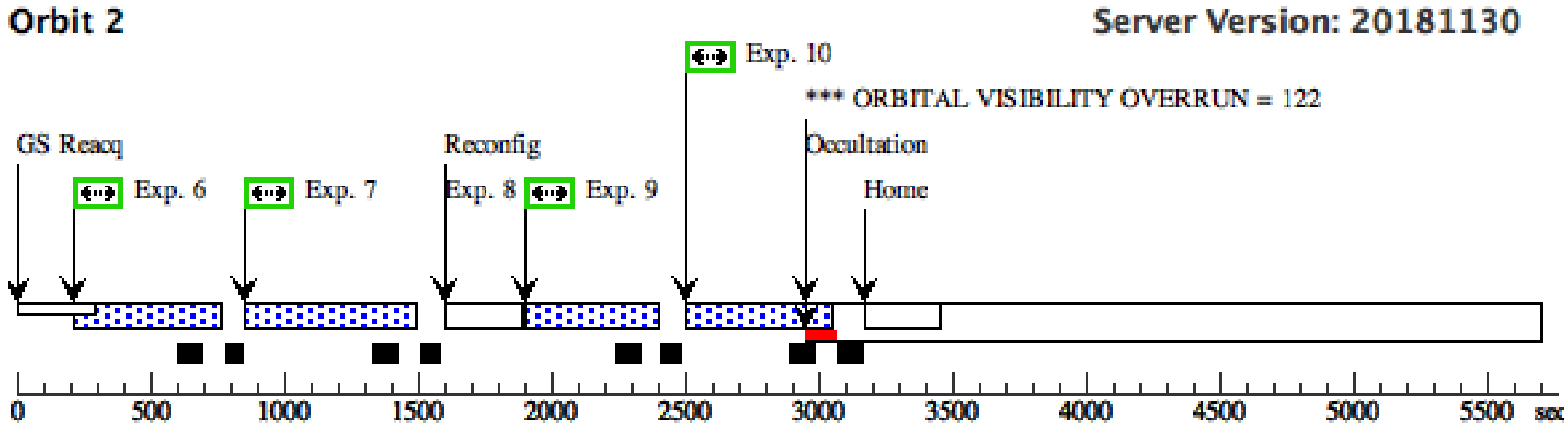
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			176 Secs (254 Secs) *[==>254.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP4; SEGMENT=BOTH			231 Secs (309 Secs) *[==>309.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1055/LP2 (COS.sp.1021696)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1055 A	BUFFER-TIME=185; FP-POS=3; SEGMENT=BOTH; LIFETIME-POS=LP2			285 Secs (363 Secs) *[==>363.0 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 = 224* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *While the program is optimized for FUVA we use the low SNR FUVB data to constraint the blue edge of the wavelength range.*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP4; SEGMENT=BOTH			264 Secs (342 Secs) *[==>342.0 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=268; LIFETIME-POS=LP4; SEGMENT=BOTH		368 Secs (416 Secs) *[==>416.0 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	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 (376 Secs) *[==>376.0 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		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.								
9	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 (375 Secs) *[==>375.0 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 = 180* *Continue use of 1 FP-POS*								
10	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 (326 Secs) *[==>326.0 Secs]*	***[2]***
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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

Orbit Structure





Proposal 15384 - GD71 - Oct complete (11) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, GD71 - Oct complete (11), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 16-OCT-2018:00:00:00 AND 12-NOV-2018:00:00:00

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.

Diagnostics

(GD71 - Oct complete (11)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

(GD71 - Oct complete (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

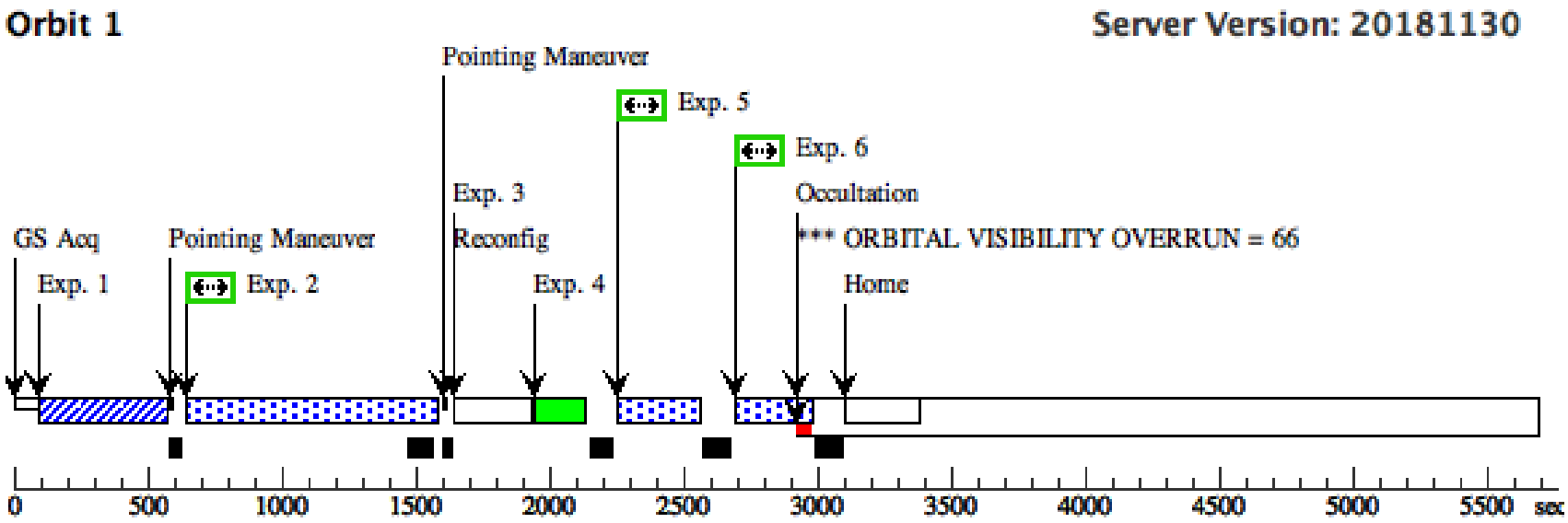
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.
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 (737 Secs) *[==>737.0 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/1577/FUVA (COS.sp.1021723)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=111; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			111 Secs (104 Secs) *[==>104.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									
6	G160M/1623/FUVA (COS.sp.1021734)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=162; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP4			162 Secs (155 Secs) *[==>155.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*									

Orbit Structure



Proposal 15384 - WD0308 - LP3check (12) - COS FUV Spectroscopic Sensitivity Monitoring

Visit

Proposal 15384, WD0308 - LP3check (12), failed

Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 25-AUG-2018 AND 31-OCT-2018

Diagnostics

(WD0308 - LP3check (12)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

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		

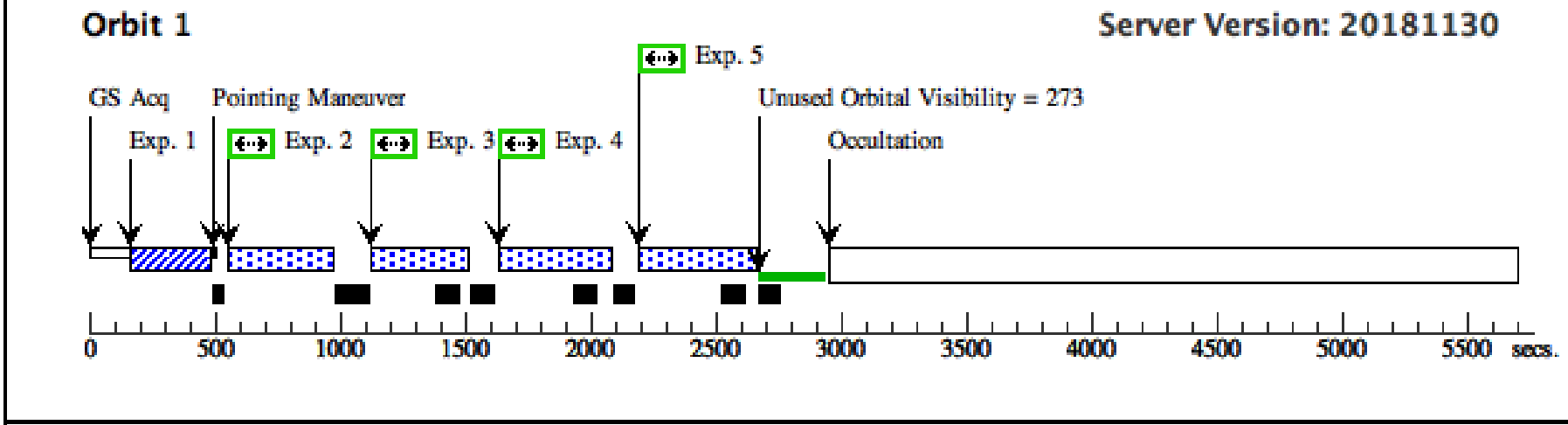
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

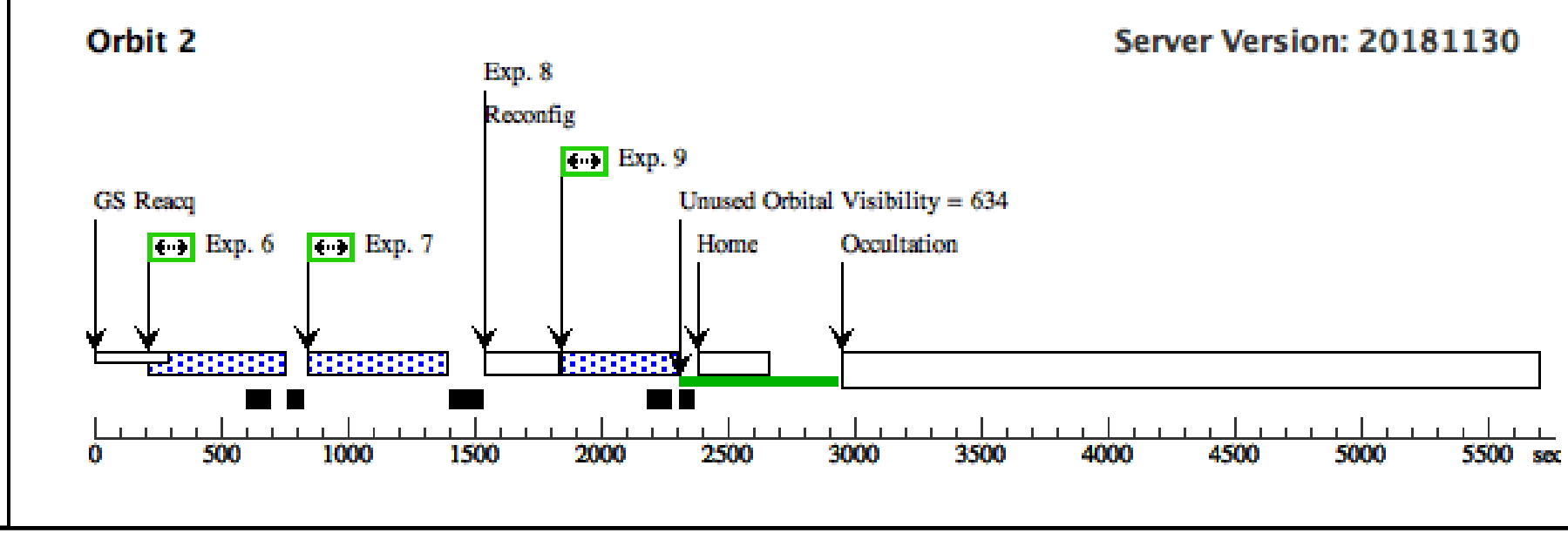
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			226 Secs (226 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			244 Secs (244 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1327 (COS.sp.1021693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			312 Secs (312 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Because this observation is at LP3, "BOTH" segments are being used. (For LP4 visits, only FUVA is obtained for cenwave 1327.)*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP3; SEGMENT=BOTH			290 Secs (290 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2688; LIFETIME-POS=LP3; SEGMENT=BOTH		400 Secs (400 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=2288; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH		280 Secs (280 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		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.								
9	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=LP3		327 Secs (327 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 = 180* *Continue use of 1 FP-POS*								

Orbit Structure





Visit

Proposal 15384, WD0308 - LP3check (56), failed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 25-AUG-2018 AND 12-NOV-2018

Diagnostics

(WD0308 - LP3check (56)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

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		

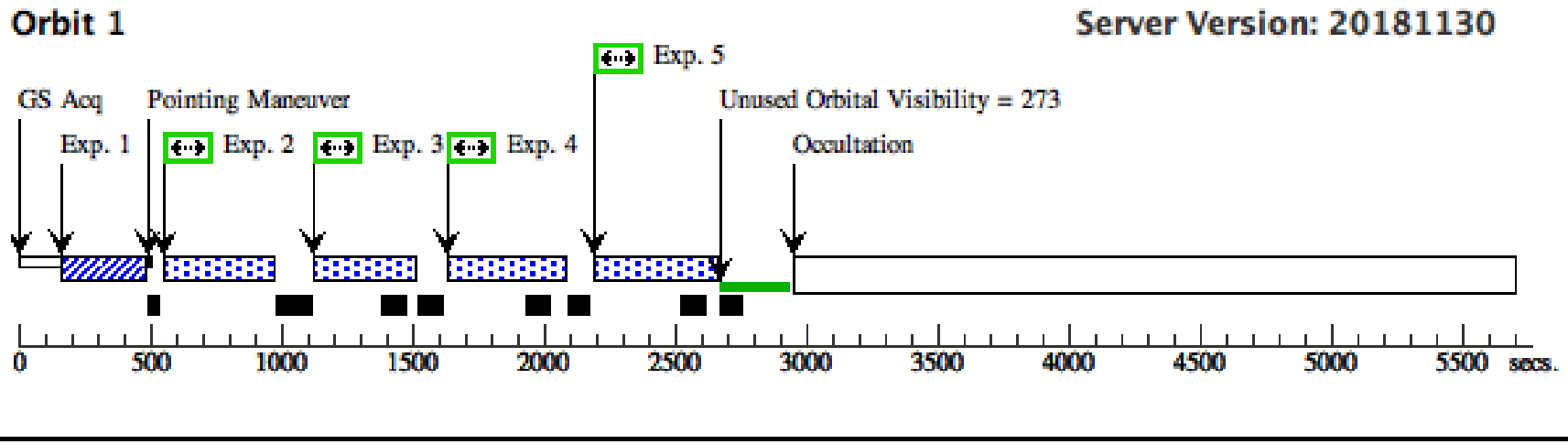
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

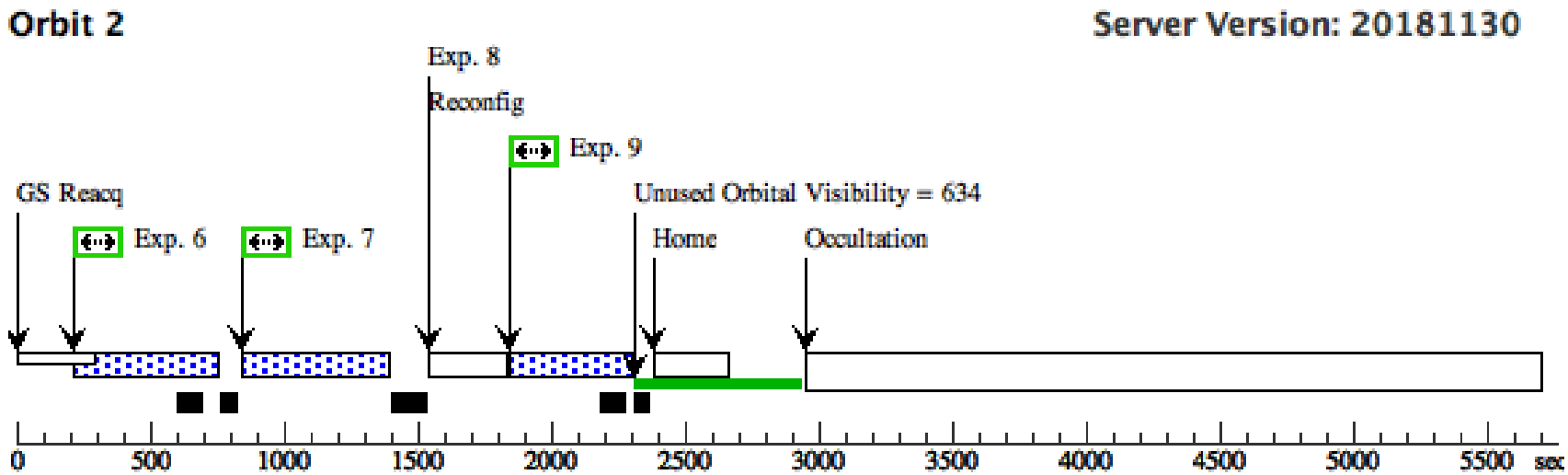
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			226 Secs (226 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			244 Secs (244 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1327 (COS.sp.1021693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			312 Secs (312 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Because this observation is at LP3, "BOTH" segments are being used. (For LP4 visits, only FUVA is obtained for cenwave 1327.)*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP3; SEGMENT=BOTH			290 Secs (290 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2688; LIFETIME-POS=LP3; SEGMENT=BOTH		400 Secs (400 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=2288; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH		280 Secs (280 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		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.								
9	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=LP3		327 Secs (327 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 = 180* *Continue use of 1 FP-POS*								

Orbit Structure





Visit

Proposal 15384, WD0308 - LP3check (57), failed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 26-DEC-2018 AND 08-JAN-2019

Diagnostics

(WD0308 - LP3check (57)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

Fixed Targets

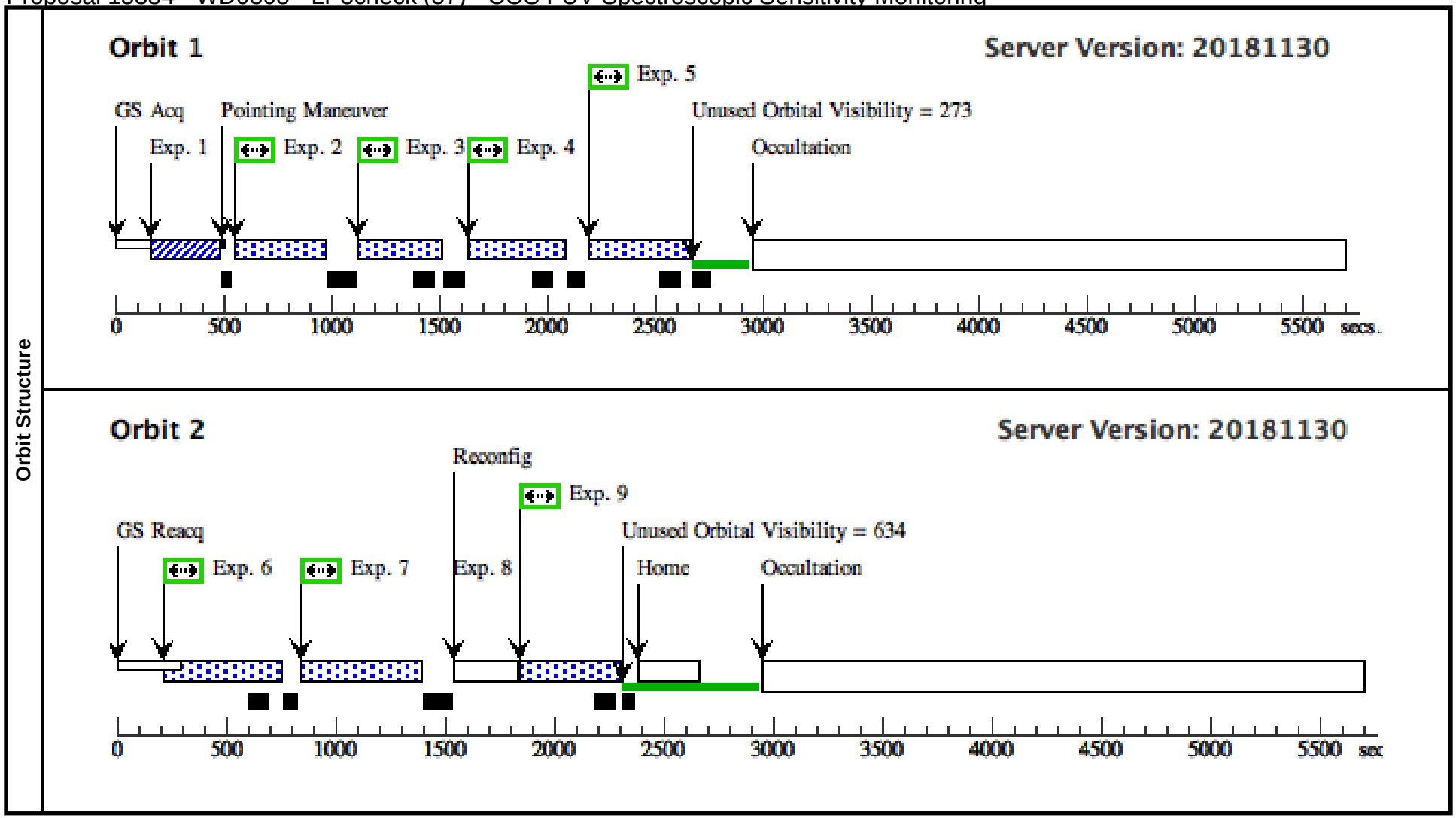
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS
		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr		
		Equinox: J2000	Epoch of Position: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

Comments: Coordinates from Charle's 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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			226 Secs (226 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			244 Secs (244 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1327 (COS.sp.1021693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			312 Secs (312 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Because this observation is at LP3, "BOTH" segments are being used. (For LP4 visits, only FUVA is obtained for cenwave 1327.)*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP3; SEGMENT=BOTH			290 Secs (290 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2688; LIFETIME-POS=LP3; SEGMENT=BOTH		400 Secs (400 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=2288; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH		280 Secs (280 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		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.								
9	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=LP3		327 Secs (327 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 = 180* *Continue use of 1 FP-POS*								


Orbit Structure
Orbit 1
Server Version: 20181130
GS Acq
Pointing Maneuver
Exp. 5
Unused Orbital Visibility = 273
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Orbit 2
Server Version: 20181130
Reconfig
Exp. 9
GS Reacq
Unused Orbital Visibility = 634
Exp. 6
Exp. 7
Exp. 8
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 15384, WD0308 - LP3check (58), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 21-FEB-2019 AND 05-MAR-2019

Diagnostics

(WD0308 - LP3check (58)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

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		

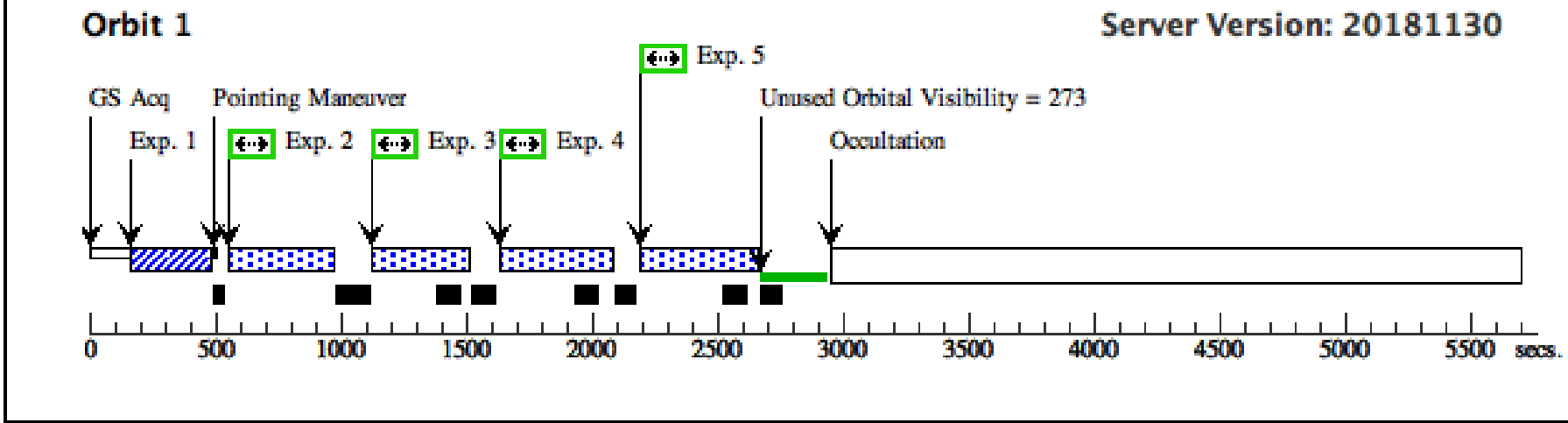
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

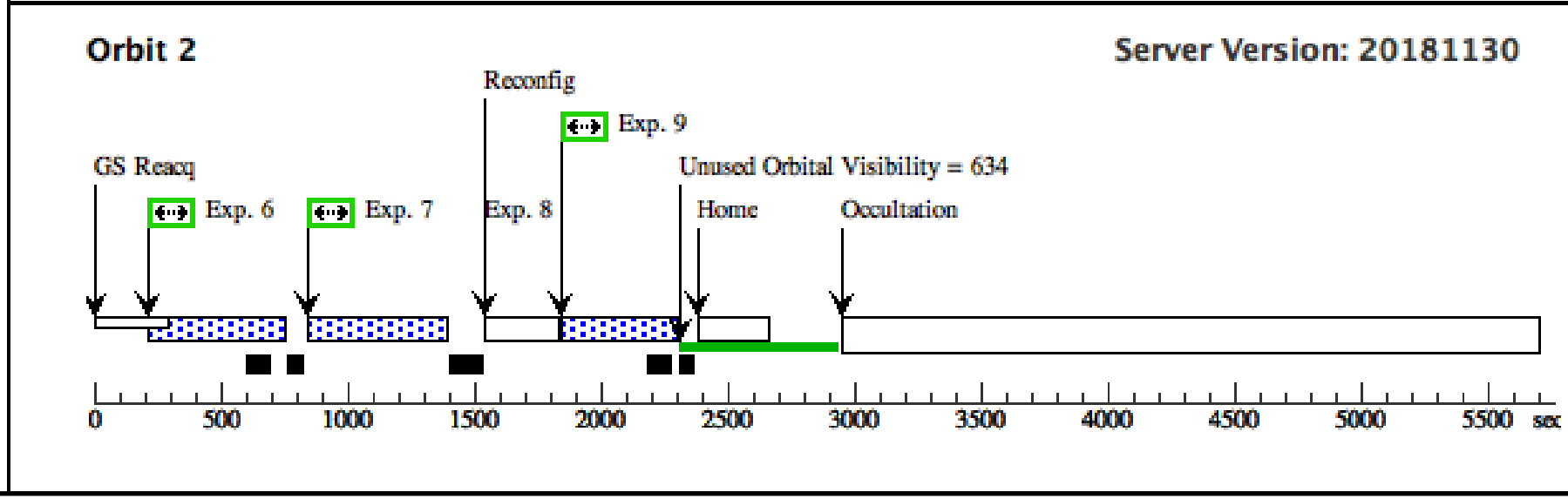
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			226 Secs (226 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			244 Secs (244 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1327 (COS.sp.1021693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			312 Secs (312 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Because this observation is at LP3, "BOTH" segments are being used. (For LP4 visits, only FUVA is obtained for cenwave 1327.)*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP3; SEGMENT=BOTH			290 Secs (290 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2688; LIFETIME-POS=LP3; SEGMENT=BOTH		400 Secs (400 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=2288; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH		280 Secs (280 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		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.								
9	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=LP3		327 Secs (327 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 = 180* *Continue use of 1 FP-POS*								

Orbit Structure





Visit

Proposal 15384, WD0308 - LP3check (59) Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%; BETWEEN 21-FEB-2019 AND 23-APR-2019

Diagnostics

(WD0308 - LP3check (59)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

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		

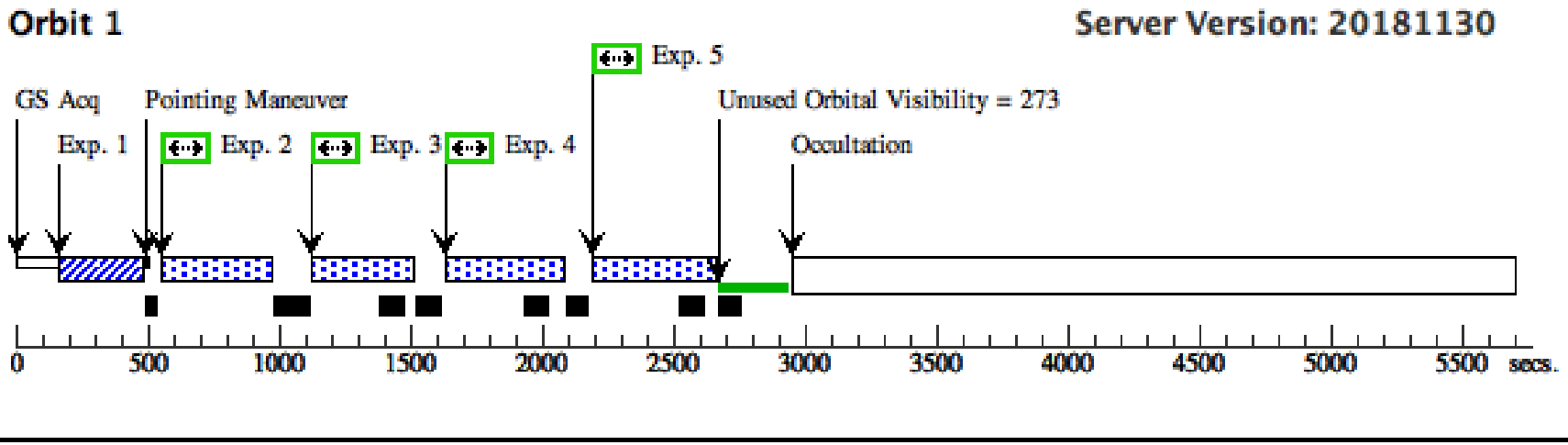
Comments: Coordinates from Charle's proposal
Category=STAR
Description=[DB]
Extended=NO

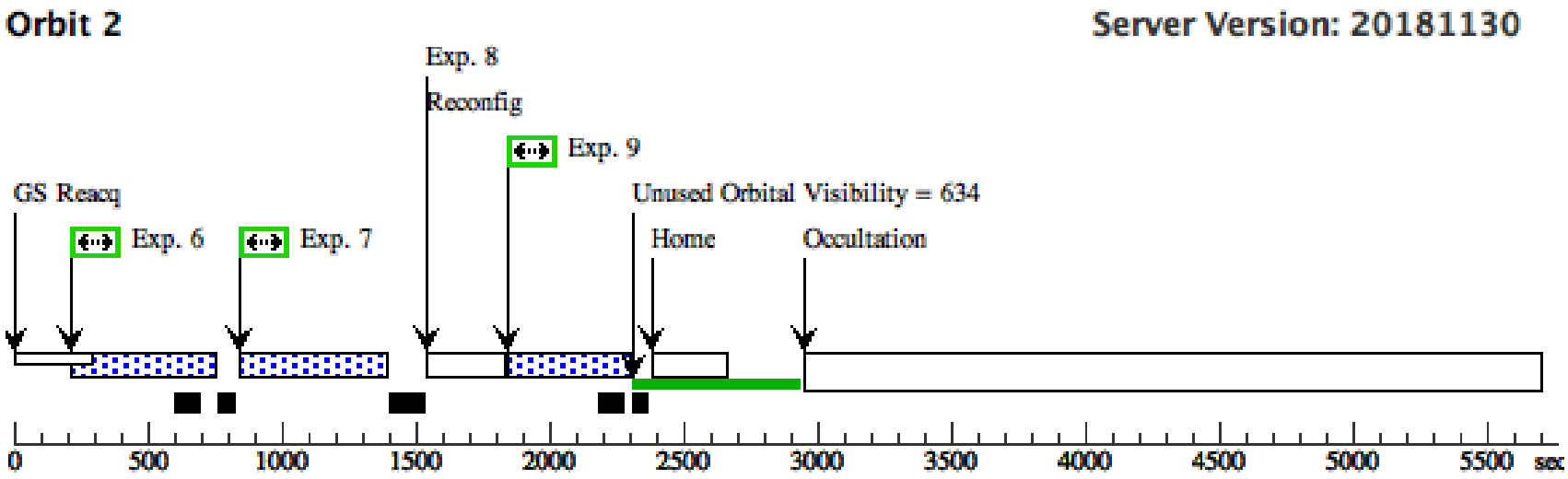
Exposures

#	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		GS ACQ SCENARIO BASE1B3		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/1222 (COS.sp.1021684)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=176; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			226 Secs (226 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
3	G130M/1291 (COS.sp.1021690)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=131; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			244 Secs (244 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
4	G130M/1327 (COS.sp.1021693)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=178; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH			312 Secs (312 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.* *Because this observation is at LP3, "BOTH" segments are being used. (For LP4 visits, only FUVA is obtained for cenwave 1327.)*								
5	G160M/1577 (COS.sp.1021702)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1577 A	FP-POS=3; BUFFER-TIME=164; LIFETIME-POS=LP3; SEGMENT=BOTH			290 Secs (290 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 = 190* *Continue use of 1 FP-POS* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								

6	G160M/1623 (COS.sp.1021704)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=2688; LIFETIME-POS=LP3; SEGMENT=BOTH		400 Secs (400 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* *cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested.*								
7	G140L/1280 (COS.sp.1021719)	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L 1280 A	BUFFER-TIME=2288; FP-POS=3; LIFETIME-POS=LP3; SEGMENT=BOTH		280 Secs (280 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		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.								
9	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=LP3		327 Secs (327 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 = 180* *Continue use of 1 FP-POS*								

Orbit Structure





Visit

Proposal 15384, GD71 - LP3check (13), completed Thu Feb 28 16:00:55 GMT 2019

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 25-AUG-2018 AND 31-OCT-2018

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.

Diagnostics

(GD71 - LP3check (13)) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

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.
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	G160M/1577/FUVA (COS.sp.1021723)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=111; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3			111 Secs (213 Secs) *[==>213.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*								
3	G160M/1623/FUVA (COS.sp.1021734)	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=162; FP-POS=3; SEGMENT=A; LIFETIME-POS=LP3			162 Secs (264 Secs) *[==>264.0 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* *Cycle 24 comment: FUVA TDS is shallower than ETC prediction, so no need to update exposure time (SNR @ 1749 will be larger than 13)*								

Orbit Structure