Proposal 15384 (STScI Edit Number: 11, Created: Thursday, February 28, 2019 at 11:00:54 AM Eastern Standard Time) - Overview



# **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	<b>OP</b> 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

Prop	osal 15384 (STScl Edit Num	<u>ber: 11, Created: Thursday, February 2</u>	28, 2019 at 11:00	<u>):54 AM Eastern Standard Tir</u>	ne) - Overview
Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	<b>OP</b> 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

Prop	<u>psal 15384 (STScl Edit Number: 11</u>	<u>, Created: Thursday, February 28, 2</u>	<u>019 at 11:00</u>	<u>):54 AM Eastern Standard Time) - (</u>	Dverview
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,

Proposal 15384 (STScI Edit Number: 11, Created: Thursday, February 28, 2019 at 11:00:54 AM Eastern Standard Time) - Overview 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.

	Proposal 15384, WD0308 - Dec	c complete (01), completed			Thu Feb 28 16:00:54 GMT 2019				
sit	Diagnostic Status: Warning								
ΪŻ	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						
tics	(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.								
S	(WD0308 - Dec complete (01))	Warning (Orbit Planner): ORBITAL VISIBILITY	OVERRUN						
ы В	(WD0308 - Dec complete (01))	Warning (Orbit Planner): ORBITAL VISIBILITY	OVERRUN						
Dia									
<i>(</i> 0	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
В,	(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				
l g		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr						
μĔ		Equinox: J2000	Epoch of Position: 2000						
xed	Comments: Coordinates from Charle's proposal								
iÊ	Description=[DB] Extended=NO								

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit			
	1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)				
		(839564)					O BASE1B3		[==>]	[1]			
	Com	nments: cycle 2	24 comment: exposu	re times not reduced following updated	ETC calculations, a	differences not enough to	affect orbit requested.						
	2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			176 Secs (254 Secs)				
		(COS.sp.102			1222 A	FP-POS=3.			[==>254.0 Secs ]				
		1684)				LIFETIME-POS=L				Ш			
						P4;							
						SEGMENT=BOTH							
	Con Sinc Con	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											
	cycl	e 24 comment:	exposure times not	reduced following updated ETC calculated	ations, differences n	not enough to affect orbit	requested.						
	Cyci We i	le 25 comment have generally	: the ETC was run f used the newly calc	or each exposure and the differences co culated values and allowed the orbit pla	ompared to Cycle 24 Inner to adjust dura	4 were not significant. tions.							
	3	G130M/129	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13			231 Secs (309 Secs)				
		(COS.sp.102			1291 A	$FP_POS=3$			[==>309.0 Secs ]				
xposures		1690)				LIFETIME-POS=L				111			
						P4;							
						SEGMENT=BOTH							
	Con Sinc Con	tinue use of 1	uffer time is 322 sec arger than exptime i FP-POS	. Target has been observed before and a use buffer time = exptime -100 sec to ma	so no neea for 2/3 s aximize time on targ	ajety margin. get = 144							
ш	Cycle 24 comment: exposure times not reduced jollowing 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.												
	4	G130M/105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=18			285 Secs (363 Secs)				
		5/LP2 (COS sp 102			1055 A	5;			[==>363.0 Secs ]				
		(CO3.sp.102 1696)				FP-POS=3;							
						SEGMENT=BOTH	• •			[1]			
						P2							
	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.												

100		1120000					
5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;	264 Secs (342 Secs)	
	7 (COS.sp.102			1577 A	BUFFER-TIME=16	[==>342.0 Secs ]	
	1702)				4; LIFETIME-POS=I		[1]
					P4;		[1]
					SEGMENT=BOTH		
Cor Tar Set	nments: ETC bi get has been ob buffer time = e:	uffer time is 599, larg oserved before no nee xptime - 100 = 190	ger than exptime d to 2/3 factor				
Cor	ntinue use of 1 1	FP-POS					
cvc	le 74 comment.	exposure times not r	educed following undated ETC calcu	lations differences	not enough to affect orbit requested		
Cw	le 25 comment	the FTC was run for	r ageh experience and the differences of	amparad to Cycle 2	A ware not significant		
We	have generally	used the newly calcu	lated values and allowed the orbit pla	anner to adjust dure	ations.		
6	G160M/162	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;	368 Secs (416 Secs)	
	3 (COS.sp.102			1623 A	BUFFER-TIME=26	[==>416.0 Secs ]	
	1704)				LIFETIME-POS=L		[2]
					P4;		
C	ETC 1		and an and a		SEGMENT=BOTH		
Tar Set	get has been ob buffer time = e	oserved before no nee xptime - 100 = 300 FP-POS	d to 2/3 factor				
00		1-105		1			
cyc	e 24 comment:	exposure times not r	educed following updated ETC calcul	lations, differences	not enough to affect orbit requested.		
Cyc We	le 25 comment:	the ETC was run for	r each exposure and the differences co	ompared to Cycle 2	4 were not significant.		
7	G140L/1280	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22	328 Secs (376 Secs)	
	(COS.sp.102 1719)			1280 A	8;	[==>376.0 Secs ]	
	1(1))				FP-POS=3;		(2)
					P4;		[2]
					SEGMENT=BOTH		
Cor Tar Sot	nments: ETC bi get has been ob buffer time – a	uffer time is 451, larg pserved before no nee xptime 100 – 180	er than exptime d to 2/3 factor				
Cor	ntinue use of 1 I	FP-POS					
Cyc We	le 25 comment: have generally	: the ETC was run for used the newly calcu	r each exposure and the differences co lated values and allowed the orbit pla	ompared to Cycle 2 anner to adjust durd	4 were not significant. ations.		
8		DARK	S/C, DATA, NONE		QASISTATES COS	1 Secs (1 Secs)	
					FUV HVLOW HVL OW	[==>]	[2]
Cor	nments: Work-a	around to efficiently s	schedule the reconfiguration to SEG-A	A. Eliminates SPSS	induced gaps.		L. L

9 G140L/1105 (1) WD0308-565 COS/FU	V, TIME-TAG, PSA	G140L	BUFFER-TIME=22	327 Secs (375 Secs)	
/FUVA (COS.sp.102 1720)		1105 A	7; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4	[==>375.0 Secs ]	[2]
Comments: ETC buffer time is 362, larger than expl Target has been observed before no need to 2/3 fact Set buffer time = exptime - 100 = 180 Continue use of 1 FP-POS Cycle 25 comment: the ETC was run for each expos We have generally used the newly calculated values	ime or ure and the differences comp and allowed the orbit planna	ared to Cycle 24 w er to adjust duratio	vere not significant. ns.		
10 G130M/132 (1) WD0308-565 COS/FU	V, TIME-TAG, PSA	G130M	BUFFER-TIME=17	278 Secs (326 Secs)	
7/FUVA (COS sp 102		1327 A	8;	[==>326.0 Secs ]	
1693)			FP-POS=3;		
			LIFETIME-POS=L P4;		[2]
			SEGMENT=A		
Comments: ETC buffer time is 320 sec. Target has be Since buffer time larger than exptime use buffer time Continue use of 1 FP-POS cycle 24 comment: exposure times not reduced follo Cycle 25 comment: the ETC was run for each expose We have generally used the newly calculated values	been observed before and so the e = exptime -100 sec to maximum of the sector maximum of the sector maximum of the sector before the sector of the sector o	no need for 2/3 safe mize time on target ons, differences not vared to Cycle 24 w er to adjust duratio	ety margin. = 212 enough to affect orbit requested. were not significant.		



yie Signational 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 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation George Chapman added Exposure 3 Optimized the exposure file G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time. g000000000000000000000000000000000000		Proposal 15384, GD71 - Dec con	nplete (02), completed			Thu Feb 28 16:00:54 GMT 2019				
Image: Scientific Instruments: S/C, COS/FUV, COS/NUV         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.         Image: 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.         Image: GGD71 - 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 proposed for details.         (GD71 - Dec complete (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN         Image: GD71 - Dec complete (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN         (2)       GD71 RA:05227.6100 (88.1150417d)       Proper Motion RA: 85 mas/yr       V=13.06+/-0.01       Reference F         (2)       GD71 RA:05227.6100 (88.1150417d)       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.       Epoch of Position: 2000       Epoch of Position: 2000		Diagnostic Status: Warning								
<ul> <li>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.</li> <li>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 see full description for details. (GD71 - Dec complete (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN</li> <li>Special Requirements: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.</li> </ul>	sit	Scientific Instruments: S/C, COS/FUV, COS/NUV								
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.         Stars       (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 see full description for details.         (GD71 - Dec complete (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN       Targ. Coord. Corrections       Fluxes       Miscellance         (2)       GD71       RA: 05 52 27.6100 (88.1150417d)       Proper Motion RA: 85 mas/yr       V=13.06+/-0.01       Reference F         (2)       GD71       RA: 05 52 27.6100 (88.1150417d)       Proper Motion Dec: -174 mas/yr       Equinox: J2000       Epoch of Position: 2000         Comments: Use sma RA, DEC and PM as in proposal 12392 by Bohlin et al.       Epoch of Position: 2000       Epoch of Position: 2000	Ë	Special Requirements: SCHED 10	0%; BETWEEN 26-DEC-2017:00:00:00 AND 0	08-JAN-2018:00:00:00						
State       State <th< th=""><th></th><th>Comments: exposure 4: GO wave George Chapman added Exposure Optimized the exposure time for th</th><th>cal to calculate the OSM shifts of the G130M/109 2 3 he G130M/1096 setting to increase its SNR (exp t</th><th>96/FUVB observation ime = 744 s) while remaining within the allocate</th><th>ed time.</th><th></th></th<>		Comments: exposure 4: GO wave George Chapman added Exposure Optimized the exposure time for th	cal to calculate the OSM shifts of the G130M/109 2 3 he G130M/1096 setting to increase its SNR (exp t	96/FUVB observation ime = 744 s) while remaining within the allocate	ed time.					
#       Name       Target Coordinates       Targ. Coord. Corrections       Fluxes       Miscellanee         (2)       GD71       RA: 05 52 27.6100 (88.1150417d)       Proper Motion RA: 85 mas/yr       V=13.06+/-0.01       Reference F         Dec: +15 53 13.80 (15.88717d)       Proper Motion Dec: -174 mas/yr       Equinox: J2000       Epoch of Position: 2000         Comments: Use sma RA, DEC and PM as in proposal 12392 by Bohlin et al.       Equinox: J200       Equinox: J200	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								
(2)       GD71       RA: 05 52 27.6100 (88.1150417d)       Proper Motion RA: 85 mas/yr       V=13.06+/-0.01       Reference F         Dec: +15 53 13.80 (15.88717d)       Proper Motion Dec: -174 mas/yr       Epoch of Position: 2000       Epoch of Position: 2000         Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.       Epoch of Position: 2000       Epoch of Position: 2000	10	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
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.         Epoch of Position: 2000	ets	(2) GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS				
Equinox: J2000       Epoch of Position: 2000         Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.       Epoch of Position: 2000	arg		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr						
Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al.	μË		Equinox: J2000	Epoch of Position: 2000						
Image: Category=STAR         Image: Description=[DA]         Description=[DA]	Fixed	Comments: Use sma RA, DEC am Category=STAR Description=[DA]								

10								ing		
	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs)	
		(COS.ta.839 574)							[==>]	[1]
	Com	nments: Exptim	e for S/N of 60 is 10	05.5 sec, using 90 sec leads to S/N of 55.						
	2	G130M/109	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=64			744 Secs (737 Secs)	
		6/FUVB/LP 2			1096 A	4;			[==>737.0 Secs ]	
		(COS.sp.839				FP-POS=3;				[1]
		576)				SEGMENT=B;				[1]
						P2				
	Com	ments: FUVB	only (all ETC warn	ings come from FUVA).						
	Set <i>t</i>	buffer-time = e:	$xptime - 100 \ sec = 0$	644 to maximize time on target.						
	Cycl	le 25 comment:	the ETC was run f	or each exposure and the differences com	npared to Cycle 24	were not significant.				
	wer 2	have generally	DARK	successful the second allowed the orbit plan	ner to adjust durat	ions.		1	1 Soog (1 Soog)	
	3		DAKK	S/C, DATA, NONE			FUV HVLOW HVI	) _	$\frac{1 \text{ Secs } (1 \text{ Secs})}{(>)}$	(1)
							OW		[>]	[1]
	Com	ments: Work-a	round to efficiently	schedule the SEG-B to SEG-A reconfigu	aration. Eliminates	s SPSS induced gaps.			140.0 (140.0 )	
	4	6/FUVA W	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			$\frac{140 \text{ Secs } (140 \text{ Secs})}{140 \text{ Secs}}$	
		AVECAL/L			1096 A	SEGMENT=A; ELASH $-NO_{2}$			[==>]	
ŝ		F2				LIEFTIME-POS-I				[1]
ure						P2				
os	5	G160M/157	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=11			111 Secs (104 Secs)	
с Х		//FUVA (COS.sp.102			1577 A				[==>104.0 Secs ]	
ш		1723)				FP-POS=5;				[1]
						LIFETIME-POS=L				[1]
						P4				
	Com	nments: FUVA	only (all ETC warn	ings come from FUVB).						
	Buff	er-time for FU	VA is 2.35e6/6513	= 360 sec, which is larger than exp time,	so set buffer time	to exptime.				
	2.35	e6 is the numb	er of events that each	ch buffer can record						
	Set k	buffer-time = e	xptime b/c exptime	-100 < 80 which is the minimum exptine	e					
	Cvcl	le 24 comment:	FUVA TDS is shall	lower than ETC prediction, so no need to	o update exposure	time (SNR @ 1749 will b	e larger than 13)			
	Cual	1. 25			en and to Custo 24					
	We l	have generally	used the newly cald	culated values and allowed the orbit plan	nparea to Cycle 24 aner to adjust durat	ions.				

						·				
	6 G160M/162 (2) GD71	COS/FUV, TIME-TAG, I	PSA G160M	BUFFER-TIME=16	162 Secs (155 Secs)					
	(COS.sp.102		1623 A	2,	[==>155.0 Secs ]					
	1734)			FP-POS=3;						
				SEGMENT=A;		[1]				
				LIFETIME-POS=L						
	Comments: FUVA only (all ET	C warnings come from FUVB).		F4		<u> </u>				
	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 expe	osure time (SNR @ 1749 will be larger than 13)						
	Cycle 25 comment: the ETC wa	s run for each exposure and the diffe	rences compared to Cy	cle 24 were not significant.						
-	We have generally used the new	vly calculated values and allowed the	e orbit planner to adjust	durations.						
	Orbit 1			Server	/ersion: 20181130					
		Pr	vinting Maneuver	Server	20101150					
		Ĩ								
			<b>€</b> ••	Exp. 5						
				Exp. 6						
ø		E	xp. 3	Occultation						
ctu	GS Acq I	Pointing Maneuver	econfig	*** ORBITAL VISIBILITY OVERRU	N = 66					
Ţ	Even 1	C M Even 2	Exp. 4	Home						
ţ	Exp. 1	ere Exp. 2	Бхр. 4	nome						
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0	Jul J	J. J.	· ↓ ↓							
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	0 500	1000 1500	2000	2500 3000 3500 4000 45	00 5000 5500 st	- X				

	Proposal 153	384, WD0308 - Feb comj	plete (03), completed			Thu Feb 28 16:00:54 GMT 2019			
sit	Diagnostic Status: Warning								
Ϊ	Scientific Instruments: S/C, COS/FUV, COS/NUV								
	Special Requ	irements: SCHED 100%;	BETWEEN 20-FEB-2018:00:00:00 AND 26	-FEB-2018:00:00:00					
tics	(WD0308 - F setting. See f	Feb complete (03)) Warnin ull description for details.	ng (Form): For the best data quality, it is stron	gly recommended that the maximum number of allo	wed FP-POS positions is used	when observing at a given COS CENWAVE			
So	(WD0308 - F	Feb complete (03)) Warnin	ng (Orbit Planner): ORBITAL VISIBILITY (	OVERRUN					
gn	(WD0308 - F	Feb complete (03)) Warnin	ng (Orbit Planner): ORBITAL VISIBILITY (	OVERRUN					
Dia									
<i>(</i> 0	# 1	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
ets	(1) V	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			
arg			Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr					
μË			Equinox: J2000	Epoch of Position: 2000					
ed	Comments: C	Coordinates from Charle's	r proposal						
i	Category=ST	TAR AR							
	Extended=No	0							

	#	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 SCENARI		45 Secs (45 Secs)	
		(839304)					O BASEIBS		[==>]	[1]
	Con	nments: cycle 2	4 comment: exposure	e times not reduced following updated	ETC calculations, a	differences not enough to	affect orbit requested.			
	2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			176 Secs (254 Secs)	
		(COS.sp.102			1222 A	FP-POS=3:			[==>254.0 Secs ]	
		1684)				LIFETIME-POS=L				[1]
						P4;				
						SEGMENT=BOTH				
	Con Sinc Con	nments: ETC bi ce buffer time la utinue use of 1 1	uffer time is 395 sec. urger than exptime us FP-POS	Target has been observed before and s se buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 126				
	cycl	le 24 comment:	exposure times not r	educed following updated ETC calculo	utions, differences n	ot enough to affect orbit	requested.			
	3	G130M/129	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13			231 Secs (309 Secs)	
		(COS.sp.102			1291 A	FP-POS=3:			[==>309.0 Secs ]	
		1690)				LIFETIME-POS=L P4·				[1]
						SEGMENT=BOTH				
sures	Sinc Con cycl	the first EFC bl ce buffer time la ntinue use of 1 1 le 24 comment:	uger than exptime us rrger than exptime us FP-POS exposure times not r	reduced following updated ETC calculo	aximize time on targ ations, differences r	ajety margin. get = 144 not enough to affect orbit	requested.			
g	4	G130M/105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=18			285 Secs (363 Secs)	
ш		5/LP2 (COS.sp.102			1055 A	5;			[==>363.0 Secs ]	
		1696)				FP-PUS=3;				[1]
						I IFETIME POS-I	•			[1]
						P2				
	Con Targ Set I Con	nments: ETC bi get has been ob buffer time = e. ntinue use of 1 h	uffer time is larger th sserved before no nee xptime - 100 = 224 FP-POS	nan exptime (1482) ed to 2/3 factor						
	cyci Whi	ile 24 comment: ile the program	is optimized for FU	value of the low SNR FUVB data to o	constraint the blue	edge of the wavelength re	requestea. ange.			
	5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			264 Secs (342 Secs)	
		7 (COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;			[==>342.0 Secs ]	
		1702)				LIFETIME-POS=L P4;				[1]
						SEGMENT=BOTH				
	Con Targ Set i	nments: ETC bi get has been ob buffer time = e.	uffer time is 599, larg served before no nee xptime - 100 = 190	ger than exptime ed to 2/3 factor						
	Con	ntinue use of 1 h	FP-POS							
	cycl	le 24 comment:	exposure times not r	reduced following updated ETC calculo	utions, differences n	not enough to affect orbit	requested.			

6 G1	160M/162 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		368 Secs (416 Secs)	
3 (C	COS.sp.102		1623 A	BUFFER-TIME=26	i	[==>416.0 Secs ]	
17	704)			8; LIEETIME DOS-L			[2]
				P4;			[2]
				SEGMENT=BOTH			
Commer Target h Set buffe Continu	nts: ETC buffer time is 799, larg has been observed before no need er time = exptime - 100 = 300 w use of 1 FP-POS	er than exptime d to 2/3 factor					
cycle 24	4 comment: exposure times not re	educed following updated ETC calcul	ations, differences	not enough to affect orbit	requested.		
7 G1	140L/1280 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		328 Secs (376 Secs)	
17	719)		1280 A	o; FP-POS-3·		[==>376.0 Secs ]	
				LIFETIME-POS=L			[2]
				P4;			
				SEGMENT=BOTH			
Commer Target h Set buffe Continu	nts: ETC buffer time is 451, larg has been observed before no need er time = exptime - 100 = 180 ue use of 1 FP-POS	er than exptime d to 2/3 factor					
8	DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)	
					FUV HVLOW HVL OW	[==>]	[2]
Commen	nts: Work-around to efficiently s	chedule the reconfiguration to SEG-A	. Eliminates SPSS	induced gaps.			1
9 G1	140L/1105 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (375 Secs)	
/F (C	UVA COS.sp.102		1105 A	7;		[==>375.0 Secs ]	
17	720)			FP-POS=3;			[2]
				J IEETIME_POS-I			[2]
				P4			
Commer Target h Set buffe Continu	nts: ETC buffer time is 362, larg has been observed before no need fer time = exptime - 100 = 180 we use of 1 FP-POS	er than exptime d to 2/3 factor					
10 G1	130M/132 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17		278 Secs (326 Secs)	
(C	COS.sp.102		1327 A	$\delta$ ;		[==>326.0 Secs ]	
16	593)			ff-fus=3; I ieftime_pos—i			[2]
				P4;			[2]
				SEGMENT=A			
Commer Since bu Continu	nts: ETC buffer time is 320 sec. T uffer time larger than exptime us we use of 1 FP-POS	Target has been observed before and e buffer time = exptime -100 sec to m	so no need for 2/3 s aximize time on tar	safety margin. get = 212			
cycle 24	4 comment: exposure times not re	educed following updated ETC calcul	ations, differences	not enough to affect orbit	requested.		



	Proposal 15384, GD71 - Feb o	complete (04), completed			Thu Feb 28 16:00:55 GMT 2019				
	Diagnostic Status: Warning								
sit	Scientific Instruments: S/C, CC	OS/FUV, COS/NUV							
ŝ	Special Requirements: SCHED	100%; BETWEEN 20-FEB-2018:00:00:00 AND 2	:6-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)) W See full description for details. (GD71 - Feb complete (04)) W	arning (Form): For the best data quality, it is strongl arning (Orbit Planner): ORBITAL VISIBILITY OV	ly recommended that the maximum number of a	llowed FP-POS positions is used	when observing at a given COS CENWAVE setting.				
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
ets	(2) GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS				
arg		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr						
μË		Equinox: J2000	Epoch of Position: 2000						
xed	Comments: Use sma RA, DEC Category=STAR	amd PM as in proposal 12392 by Bohlin et al.							
ΪĹ	Description=[DA] Extended=NO								

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs)	
		(COS.ta.839 574)							[==>]	[1]
	Con	nments: Exptim	ne for S/N of 60 is 10	05.5 sec, using 90 sec leads to S/N of 55.						
	2	G130M/109	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=64			744 Secs (737 Secs)	
		6/FUVB/LP 2			1096 A	4;			[==>737.0 Secs ]	
		(COS.sp.839				FP-POS=3;				[1]
		570)				I IFFTIME-POS-I				[1]
						P2				
	Con Set l	nments: FUVB buffer-time = e.	only (all ETC warn xptime - 100 sec = 0	ings come from FUVA). 644 to maximize time on target.						
	3		DARK	S/C, DATA, NONE			QASISTATES COS	5	1 Secs (1 Secs)	
							FUV HVLOW HVI OW		[==>]	[1]
	Con	nments: Work-a	around to efficiently	schedule the SEG-B to SEG-A reconfigu	uration. Eliminate:	s SPSS induced gaps.				
	4	G130M/109	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			140 Secs (140 Secs)	
		6/FUVA W AVECAL/L			1096 A	SEGMENT=A;			[==>]	
		P2				FLASH=NO;				[1]
es						LIFETIME-POS=L P2				
sur	5	G160M/157	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=11			111 Secs (104 Secs)	
öd		7/FUVA (COS sp 102			1577 A	1;			[==>104.0 Secs ]	
Щ		1723)				FP-POS=3;				(1)
						SEGMENT=A;				[1]
						P4				
	Con	nments: FUVA	only (all ETC warn	ings come from FUVB).						
	Buff 2.35 651 Set l	fer-time for FU 5e6 is the numb 3 cts/sec is the buffer-time = e.	VA is 2.35e6/6513 = er of events that eac count rate in FUVA xptime b/c exptime -	= 360 sec, which is larger than exp time, ch buffer can record , per ETC calculation above - 100 < 80 which is the minimum exptim	, so set buffer time i e	to exptime.				
	Cyc	le 24 comment:	: FUVA TDS is shal	lower than ETC prediction, so no need t	o update exposure	time (SNR @ 1749 will b	e larger than 13)			
	6	G160M/162	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=16			162 Secs (155 Secs)	
		3/FUVA (COS.sp.102			1623 A	2; EP POS-3:			[==>155.0 Secs ]	
		1734)				SEGMENT=A:				m
						LIFETIME-POS=L P4				1-1
	Con	nments: FUVA	only (all ETC warn	ings come from FUVB).						
	Buff 2.35 651 Set 1	fer-time for FU 5e6 is the numb 3 cts/sec is the buffer-time = e. 1e 24 comment	VA is 2.35e6/6513 = er of events that eac count rate in FUVA xptime b/c exptime · FUVA TDS is shal	= 360 sec, which is larger than exp time, h buffer can record , per ETC calculation above - 100 < 80 which is the minimum exptim lower than ETC prediction so no need t	, so set buffer time : e o undate exposure	to exptime. time (SNR @ 1749 will b	pe larger than 13)			
	UYCI	ie 24 comment:	. TUVA IDS IS Shal	iower man ETC prediction, so no need t	o upadie expositre	ume (SIVIN @ 1749 Will b	e anger man 15)			



	Proposal 15384, WD0308 - Apr	complete (05), failed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Warning									
Ż	Scientific Instruments: S/C, COS	/FUV, COS/NUV								
	Special Requirements: SCHED 1	00%; BETWEEN 10-APR-2018:00:00:00 AND 2	23-APR-2018:00:00:00							
tics	(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.									
ost	(WD0308 - Apr complete (05)) V	Warning (Orbit Planner): ORBITAL VISIBILITY	OVERRUN							
gn	(WD0308 - Apr complete (05)) W	Warning (Orbit Planner): ORBITAL VISIBILITY	OVERRUN							
Dia										
.0	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(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					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
Ĕ		Equinox: J2000	Epoch of Position: 2000							
ed	Comments: Coordinates from Ch	aarle's proposal								
Ē	Category=STAR Description=[DB]									
	Extended=NO									

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
		(839564)					O BASE1B3		[==>]	[1]
	Con	nments: cycle 2	4 comment: exposure	e times not reduced following updated	ETC calculations, o	differences not enough to	affect orbit requested.			1
	2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			176 Secs (254 Secs)	
		(COS.sp.102			1222 A	FP-POS=3:			[==>254.0 Secs ]	
		1684)				LIFETIME-POS=L				[1]
						P4;				
	~					SEGMENT=BOTH				
	Con Sinc Con	nments: ETC bi se buffer time la tinue use of 1 h	uffer time is 395 sec. irger than exptime us FP-POS	<i>larget has been observed before and s</i> se buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 126				
	cycl	e 24 comment:	exposure times not r	educed following updated ETC calcula	ations, differences n	not enough to affect orbit	requested.			1
	3	G130M/129 1	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13 1;			$\frac{231 \text{ Secs } (309 \text{ Secs})}{1 - 230 \text{ O} \text{ Secs}}$	
		(COS.sp.102			1291 A	FP-POS=3;			l = >309.0  secs  l	
		1090)				LIFETIME-POS=L P4;				[1]
						SEGMENT=BOTH				
Exposure	Con <u>cycl</u> 4	tinue use of 1 <u>e 24 comment:</u> G130M/105 5/LP2 (COS.sp.102 1696)	+P-POS <u>exposure times not r</u> (1) WD0308-565	educed following updated ETC calculd COS/FUV, TIME-TAG, PSA	<u>utions, differences n</u> G130M 1055 A	not enough to affect orbit BUFFER-TIME=18 5; FP-POS=3; SEGMENT=BOTH LIEETIME POS-1	requested.		285 Secs (363 Secs) [==>363.0 Secs ]	[1]
	Con Targ Set Con	nments: ETC bi get has been ob buffer time = e. tinue use of 1 fe 24 comment:	uffer time is larger th served before no nee xptime - 100 = 224 FP-POS exposure times not r	an exptime (1482) ed to 2/3 factor educed following updated ETC calcula	ntions differences r	P2	requested			
	Whi	le the program	is optimized for FU	VA we use the low SNR FUVB data to a	constraint the blue	edge of the wavelength r	ange.			
	5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			264 Secs (342 Secs)	
		(COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;	i		[==>342.0 Secs ]	
						LIFETIME-POS=L P4;				[1]
	Con Tar Set Con	nments: ETC bi get has been ob buffer time = e. stinue use of 1 1	uffer time is 599, larg sserved before no nee xptime - 100 = 190 FP-POS	ger than exptime ed to 2/3 factor		SEGMENT=BOTH				1
	cycl	e 24 comment:	exposure times not r	educed following updated ETC calculo	utions, differences n	not enough to affect orbit	requested.			

6 G160M/162 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		368 Secs (416 Secs)	
3 (COS.sp.102		1623 A	BUFFER-TIME=26		[==>416.0 Secs ]	
1704)			8; LIEETIME DOS-L			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 79 Target has been observed before a Set buffer time = exptime - 100 = Continue use of 1 FP-POS	9, larger than exptime no need to 2/3 factor 300					
cycle 24 comment: exposure time:	s not reduced following updated ETC calcu	lations, difference.	s not enough to affect orbit r	requested.		
7 G140L/1280 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		328 Secs (376 Secs)	
(COS.sp.102 1719)		1280 A	8; EP DOG 2:		[==>376.0 Secs ]	
			FP-POS=3;			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 45 Target has been observed before a Set buffer time = exptime - 100 = Continue use of 1 FP-POS	1, larger than exptime no need to 2/3 factor 180					
8 DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)	
				FUV HVLOW HVL OW	[==>]	[2]
Comments: Work-around to effici	ently schedule the reconfiguration to SEG-	A. Eliminates SPS	5S induced gaps.			
9 G140L/1105 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (375 Secs)	
/FUVA (COS sp 102		1105 A	7;		[==>375.0 Secs ]	
1720)			FP-POS=3;			
			SEGMENT=A;			[2]
			LIFETIME-POS=L P4			
Comments: ETC buffer time is 36 Target has been observed before a Set buffer time = exptime - 100 = Continue use of 1 FP-POS	2, larger than exptime no need to 2/3 factor 180					
10 G130M/132 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17		278 Secs (326 Secs)	
//FUVA (COS.sp.102		1327 A	$\delta$ ;		[==>326.0 Secs ]	
1693)			FF-FUS=3; LIFETIME_POS-I			[2]
			P4;			[2]
			SEGMENT=A			
Comments: ETC buffer time is 32 Since buffer time larger than expt Continue use of 1 FP-POS	0 sec. Target has been observed before and ime use buffer time = exptime -100 sec to n	so no need for 2/2 naximize time on to	3 safety margin. arget = 212			
cycle 24 comment: exposure time:	s not reduced following updated ETC calcu	tations, difference.	s not enough to affect orbit r	equested.		



	Proposal 15384, WD0308 - A	pr complete (55), completed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Warning									
Ż	Scientific Instruments: S/C, CO	DS/FUV, COS/NUV								
	Special Requirements: SCHED	0 100%; BETWEEN 07-MAY-2018:00:00:00 AND	13-MAY-2018:00:00:00							
ics	(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.									
ost	(WD0308 - Apr complete (55))	) Warning (Orbit Planner): ORBITAL VISIBILITY	OVERRUN							
gn	(WD0308 - Apr complete (55)	) Warning (Orbit Planner): ORBITAL VISIBILITY	OVERRUN							
Dia										
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(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					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
μË		Equinox: J2000	Epoch of Position: 2000							
ed	Comments: Coordinates from	Charle's proposal								
Ē	Category=STAR Description=[DB]									
	Extended=NO									

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
		(839564)					O BASE1B3		[==>]	[1]
	Con	nments: cycle 2	4 comment: exposur	e times not reduced following updated	ETC calculations, a	lifferences not enough to	affect orbit requested.			1
	2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			176 Secs (254 Secs)	
		(COS.sp.102			1222 A	FP-POS=3:			[==>254.0 Secs ]	
		1684)				LIFETIME-POS=L				[1]
						P4;				
	~		<i>.</i>			SEGMENT=BOTH				
	Con Sinc Con	nments: ETC bl ce buffer time la ttinue use of 1 1	uffer time is 595 sec. arger than exptime u. FP-POS	se buffer time = exptime -100 sec to ma	so no neea for 2/5 s aximize time on targ	afery margin. get = 126				
	cycl	le 24 comment:	exposure times not r	reduced following updated ETC calcula	ations, differences n	not enough to affect orbit	requested.			1
	3	G130M/129 1	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13 1:			231 Secs (309 Secs)	
		(COS.sp.102			1291 A	FP-POS=3;			[==>309.0  Secs]	
		1090)				LIFETIME-POS=L P4;				[1]
						SEGMENT=BOTH				
posures	Sinc Con cycl 4	tinue use of 1 11 1 <u>e 24 comment:</u> G130M/105	exposure times not r (1) WD0308-565	se buffer time = exptime -100 sec to ma educed following updated ETC calcula COS/FUV, TIME-TAG, PSA	aximize time on targ ations, differences n G130M	get = 144 not enough to affect orbit BUFFER-TIME=18	requested.		285 Secs (363 Secs)	1
Щ		5/LP2			1055 A	5;			[==>363.0 Secs ]	
		(COS.sp.102 1696)				FP-POS=3;				
						SEGMENT=BOTH	•,			[1]
						P2				
	Con Targ Set I Con cycl	nments: ETC bi get has been ob buffer time = e. ntinue use of 1 h le 24 comment:	uffer time is larger th oserved before no nee xptime - 100 = 224 FP-POS exposure times not 1	aan exptime (1482) ed to 2/3 factor reduced following updated ETC calcula	ations, differences n	not enough to affect orbit	requested.			
	Ŵhi	ile the program	is optimized for FU	VA we use the low SNR FUVB data to	constraint the blue	edge of the wavelength r	ange.			1
	5	G160M/157 7	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			264 Secs (342 Secs)	
		(COS.sp.102			1577 A	BUFFER-TIME=16 4;	i		[==>342.0 Secs]	
		1702)				LIFETIME-POS=L				[1]
						P4;				
	Con Tar	nments: ETC bi	uffer time is 599, larg	ger than exptime ed to 2/3 factor		SEGMENT=BOTH				
	Set i	buffer time $= e$ .	xptime - 100 = 190							
	Con	unue use of I I	FF-PU5							
	cycl	le 24 comment:	exposure times not i	reduced following updated ETC calculo	ations, differences n	ot enough to affect orbit	requested.			

6 G160M/162 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		368 Secs (416 Secs)	
3 (COS.sp.102		1623 A	BUFFER-TIME=26		[==>416.0 Secs ]	
1704)			8; LIEETIME DOS-I			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 79 Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	9, larger than exptime no need to 2/3 factor 300					
cycle 24 comment: exposure time.	s not reduced following updated ETC calcu	lations, difference.	s not enough to affect orbit r	requested.		
7 G140L/1280 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		328 Secs (376 Secs)	
(COS.sp.102 1719)		1280 A	$\delta$ ;		[==>376.0 Secs ]	
			LIFETIME-POS-I			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 45 Target has been observed before a Set buffer time = exptime - 100 = Continue use of 1 FP-POS	1, larger than exptime no need to 2/3 factor 180					
8 DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)	
				FUV HVLOW HVL OW	[==>]	[2]
Comments: Work-around to effici	ently schedule the reconfiguration to SEG-	A. Eliminates SPS	SS induced gaps.			
9 G140L/1105 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (375 Secs)	
/FUVA (COS sp 102		1105 A	7;		[==>375.0 Secs ]	
1720)			FP-POS=3;			(2)
			SEGMENT=A;			[2]
			P4			
Comments: ETC buffer time is 36 Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	2, larger than exptime no need to 2/3 factor 180					
10 G130M/132 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17		278 Secs (326 Secs)	
//FUVA (COS.sp.102		1327 A	8; ED DOS-2:		[==>326.0 Secs ]	
1693)			FF-FUS=3; LIFETIME DOS-I			[2]
			P4;			[2]
			SEGMENT=A			
Comments: ETC buffer time is 32 Since buffer time larger than expt Continue use of 1 FP-POS	0 sec. Target has been observed before and ime use buffer time = exptime -100 sec to n	t so no need for 2/2 naximize time on to	3 safety margin. arget = 212			
cycle 24 comment: exposure time.	s not reduced following updated ETC calcu	tations, difference.	s not enough to affect orbit r	equested.		



	Proposal 15384, GD71 - Apr	complete (06), completed			Thu Feb 28 16:00:55 GMT 2019				
	Diagnostic Status: Warning								
sit	Scientific Instruments: S/C, CC	OS/FUV, COS/NUV							
Ë	Special Requirements: SCHED	100%; BETWEEN 10-APR-2018:00:00:00 AND 2	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)) W See full description for details. (GD71 - Apr complete (06)) W	arning (Form): For the best data quality, it is strongl arning (Orbit Planner): ORBITAL VISIBILITY OV	ly recommended that the maximum number of a	llowed FP-POS positions is used	when observing at a given COS CENWAVE setting.				
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
ets	(2) GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS				
arg		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr						
μË		Equinox: J2000	Epoch of Position: 2000						
ed	Comments: Use sma RA, DEC	amd PM as in proposal 12392 by Bohlin et al.							
Ê	Category=STAR Description=[DA]								
	Extended=NO								

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs)	
		(COS.ta.839 574)							[==>]	[1]
	Com	iments: Exptim	ne for S/N of 60 is	105.5 sec, using 90 sec leads to S/N of 55.						
	2	G130M/109	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=64			744 Secs (737 Secs)	
		6/FUVB/LP 2			1096 A	4;			[==>737.0 Secs ]	
		(COS.sp.839				FP-POS=3;				
		570)				I IFFTIME-POS-I				[1]
						P2				
	Com Set b	uments: FUVB buffer-time = e	only (all ETC wa xptime - 100 sec	rnings come from FUVA). = 644 to maximize time on target.						
	3		DARK	S/C, DATA, NONE			QASISTATES COS		1 Secs (1 Secs)	
							FUV HVLOW HVL OW		[==>]	[1]
	Com	nments: Work-a	around to efficien	tly schedule the SEG-B to SEG-A reconfig	uration. Eliminates	s SPSS induced gaps.				1
	4	G130M/109	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			140 Secs (140 Secs)	
		6/FUVA W AVECAL/L			1096 A	SEGMENT=A;			[==>]	
		P2				FLASH=NO;				[1]
es						LIFETIME-POS=L P2				
sur	5	G160M/157	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=11			111 Secs (104 Secs)	
bo		7/FUVA (COS sp 102			1577 A	1;			[==>104.0 Secs ]	
EX		(000)spirio <u>2</u> 1723)				FP-POS=3;				(1)
						SEGMEN I=A;				[1]
						P4				
	Com	nments: FUVA	only (all ETC wa	urnings come from FUVB).						
	Buff	er-time for FU	VA is 2.35e6/651	3 = 360 sec, which is larger than exp time	, so set buffer time	to exptime.				
	2.35 6513	e6 is the numb 3 cts/sec is the	er of events that e count rate in FU	each buffer can record VA. per ETC calculation above						
	Set <i>k</i>	buffer-time = e	xptime b/c exptin	re - 100 < 80 which is the minimum exptin	e					
	Cycl	le 24 comment:	: FUVA TDS is sh	hallower than ETC prediction, so no need t	o update exposure	time (SNR @ 1749 will b	pe larger than 13)			
	6	G160M/162	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=16			162 Secs (155 Secs)	
		5/FUVA (COS.sp.102			1623 A	2; FP-POS-3:			[==>155.0 Secs ]	
		1734)				SEGMENT=A				[1]
						LIFETIME-POS=L				[1]
						P4				
	Com	nments: FUVA	only (all ETC wa	urnings come from FUVB).						
	Buff	er-time for FU	VA is 2.35e6/651	3 = 360 sec, which is larger than exp time	, so set buffer time	to exptime.				
	2.35 6513	eo is the numb 3 cts/sec is the	er of events that e count rate in FU	eacn buffer can record VA, per ETC calculation above						
	Set <i>b</i>	buffer-time = e	xptime b/c exptim	100 < 80 which is the minimum exptine	e					
	Cycl	le 24 comment:	: FUVA TDS is sh	hallower than ETC prediction, so no need i	o update exposure	time (SNR @ 1749 will b	pe larger than 13)			



	Proposal 15384, WD0308 - Jun	complete (07), completed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Warning									
Vi	Scientific Instruments: S/C, COS/FUV, COS/NUV									
	Special Requirements: SCHED 1	00%; BETWEEN 05-JUN-2018:00:00:00 AND 1	8-JUN-2018:00:00:00							
tics	(WD0308 - Jun complete (07)) W setting. See full description for de	Varning (Form): For the best data quality, it is stro etails.	ngly recommended that the maximum number of allo	wed FP-POS positions is us	ed when observing at a given COS CENWAVE					
(WD0308 - Jun complete (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN										
(WD0308 - Jun complete (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN										
Dia										
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(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					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
Τŝ		Equinox: J2000	Epoch of Position: 2000							
ed	Comments: Coordinates from Charle's proposal									
-iX	Category=STAR									
	Extended=NO									

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
		(839564)					O BASE1B3		[==>]	[1]
	Con	nments: cycle 2	4 comment: exposur	e times not reduced following updated	ETC calculations, a	lifferences not enough to	o affect orbit requested.		1	1
	2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			176 Secs (254 Secs)	
		(COS.sp.102			1222 A	FP-POS=3:			[==>254.0 Secs ]	
		1684)				LIFETIME-POS=L				[1]
						P4;				
						SEGMENT=BOTH				
	Con Sinc Con	nments: ETC bi ce buffer time la ntinue use of 1 h	uffer time is 395 sec. arger than exptime u. FP-POS	Target has been observed before and se buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 126				
	cycl	le 24 comment:	exposure times not r	reduced following updated ETC calcul	ations, differences n	ot enough to affect orbit	requested.			
	3	G130M/129	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13			231 Secs (309 Secs)	
		(COS.sp.102			1291 A	FP-POS=3;			[==>309.0 Secs]	
		1690)				LIFETIME-POS=L P4;				[1]
						SEGMENT=BOTH				
posures	Sinc Con cycl 4	ce buffer time la atinue use of 1 1 le 24 comment: G130M/105	arger than exptime u. FP-POS <u>exposure times not 1</u> (1) WD0308-565	se buffer tume = exptime -100 sec to ma reduced following updated ETC calcula COS/FUV, TIME-TAG, PSA	aximize time on tars ations, differences n G130M	get = 144 not enough to affect orbit BUFFER-TIME=18	requested.		285 Secs (363 Secs)	
Ш		5/LP2	~ /		1055 A	5;			[==>363.0 Secs ]	
		(CO3.sp.102 1696)				FP-POS=3;				
						SEGMENT=BOTH	;			[1]
						P2				
	Con Targ Set l Con cycl	nments: ETC bi get has been ob buffer time = e. titinue use of 1 le 24 comment:	uffer time is larger th oserved before no nee xptime - 100 = 224 FP-POS exposure times not 1	aan exptime (1482) ed to 2/3 factor reduced following updated ETC calcul	ations, differences n	not enough to affect orbit	requested.			
	Whi	ile the program	is optimized for FU	VA we use the low SNR FUVB data to	constraint the blue	edge of the wavelength r	ange.			
	5	G160M/157 7	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			264 Secs (342 Secs)	
		(COS.sp.102			1577 A	BUFFER-TIME=16 4;	)		[==>342.0 Secs]	
		1702)				LIFETIME-POS=L				[1]
						P4;				
	Con Tar	nments: ETC bi	uffer time is 599, larg	ger than exptime ed to 2/3 factor		SEGMENT=BOTH				
	Set I	buffer time $= e$ .	xptime - 100 = 190	.u io 2/3 jucior						
	Con	itinue use of I I	FP-POS							
	cycl	le 24 comment:	exposure times not i	reduced following updated ETC calculo	ations, differences n	ot enough to affect orbit	requested.			

6 G160M/162 (1) WD0308	-565 COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		368 Secs (416 Secs)	
3 (COS.sp.102		1623 A	BUFFER-TIME=26		[==>416.0 Secs ]	
1704)			8; LIEETIME DOS-L			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 7 Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	99, larger than exptime e no need to 2/3 factor = 300					
cycle 24 comment: exposure time	es not reduced following updated ETC calcu	lations, difference	es not enough to affect orbit re	equested.		
7 G140L/1280 (1) WD0308	-565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		328 Secs (376 Secs)	
(COS.sp.102 1719)		1280 A	8; ED DOS - 2:		[==>376.0 Secs ]	
			FP-POS=3;			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 4. Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	51, larger than exptime e no need to 2/3 factor = 180					
8 DARK	S/C, DATA, NONE		(	QASISTATES COS	1 Secs (1 Secs)	
			]	FUV HVLOW HVL OW	[==>]	[2]
Comments: Work-around to effic	ciently schedule the reconfiguration to SEG-	A. Eliminates SPS	SS induced gaps.			
9 G140L/1105 (1) WD0308	-565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (375 Secs)	
/FUVA (COS sp 102		1105 A	7;		[==>375.0 Secs ]	
1720)			FP-POS=3;			
			SEGMENT=A;			[2]
			LIFETIME-POS=L P4			
Comments: ETC buffer time is 3 Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	62, larger than exptime e no need to 2/3 factor = 180					
10 G130M/132 (1) WD0308	-565 COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17		278 Secs (326 Secs)	
//FUVA (COS.sp.102		1327 A	8; ED DOS-2:		[==>326.0 Secs ]	
1693)			rr-rus=3; Lifetime_pos-i			[2]
			P4;			[2]
			SEGMENT=A			
Comments: ETC buffer time is 3. Since buffer time larger than exp Continue use of 1 FP-POS	20 sec. Target has been observed before and otime use buffer time = exptime -100 sec to r	l so no need for 2/2 naximize time on to	3 safety margin. arget = 212			
cycle 24 comment: exposure time	es not reduced following updated ETC calcu	tations, difference.	es not enough to affect orbit re	equested.		



	Proposal 15384, WD0	008 - Aug complete (08), completed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Wa	rning								
Ż	Scientific Instruments: S/C, COS/FUV, COS/NUV									
	Special Requirements:	CHED 100%; BETWEEN 14-AUG-2018:00:00:	00 AND 27-AUG-2018:00:00:00							
tics	(WD0308 - Aug compl setting. See full descrip	te (08)) Warning (Form): For the best data qualit	y, it is strongly recommended that the maximum number of all	owed FP-POS positions is use	ed when observing at a given COS CENWAVE					
SO	(WD0308 - Aug compl	ete (08)) Warning (Orbit Planner): ORBITAL VIS	SIBILITY OVERRUN							
gn	(WD0308 - Aug complete (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
Dia										
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(1) WD0308-3	65 RA: 03 09 47.9200 (47.4496667c	d) Proper Motion RA: 0.018141 sec of time/yr	V=14.07+/-0.02	Reference Frame: ICRS					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
μË		Equinox: J2000	Epoch of Position: 2000							
(ed	Comments: Coordinate	s from Charle's proposal								
iÊ	Description=[DB]									
	Extended=NO									

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
		(839564)					O BASE1B3		[==>]	[1]
	Con	iments: cycle 2	24 comment: exposu	re times not reduced following updated	ETC calculations, o	differences not enough to	affect orbit requested.			1
	2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			176 Secs (254 Secs)	-
		(COS.sp.102			1222 A	FP-POS=3.			[==>254.0 Secs ]	
		1684)				LIFETIME-POS=L				[1]
						P4;				1-5
						SEGMENT=BOTH				
	Con Sinc Con	uments: ETC b e buffer time la tinue use of 1 l	uffer time is 395 sec arger than exptime ı FP-POS	. Target has been observed before and s ise buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	rafety margin. get = 126				
	cycl	e 24 comment:	exposure times not	reduced following updated ETC calcula	ations, differences r	iot enough to affect orbit	requested.			1
	3	G130M/129	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13			231 Secs (309 Secs)	
		(COS.sp.102			1291 A	FP-POS=3			[==>309.0 Secs ]	
		1690)				LIFETIME-POS=L				[1]
						P4;				1-5
						SEGMENT=BOTH				
osures	Sinc Con cycl	e buffer time la tinue use of 1 e 24 comment:	arger than exptime i FP-POS exposure times not	use buffer time = exptime -100 sec to ma reduced following updated ETC calcula	aximize time on tar <sub>t</sub> ations, differences r	get = 144 not enough to affect orbit	requested.			1
ğ	4	G130M/105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=18			285 Secs (363 Secs)	
Ш́		(COS.sp.102			1055 A	J, FP-POS-3			[==>363.0  Secs ]	
		1696)				SEGMENT=BOTH				[1]
						LIFETIME-POS=L	,			1-1
						P2				
	Con Targ Set l Con	iments: ETC b get has been of buffer time = e tinue use of 1	uffer time is larger t bserved before no ne xptime - 100 = 224 FP-POS	han exptime (1482) ved to 2/3 factor						
	cycl Whi	e 24 comment: le the program	exposure times not is optimized for FU	reduced following updated ETC calculo IVA we use the low SNR FUVB data to	ations, differences r constraint the blue	10t enough to affect orbit edge of the wavelength r	requested. ange.			
	5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			264 Secs (342 Secs)	
		(COS.sp.102			1577 A	BUFFER-TIME=16 4;	5		[==>342.0 Secs ]	
		1702)				LIFETIME-POS=L				[1]
						P4;				
	G		<i>«</i> · · · · · · · · · · · · · · · · · · ·			SEGMENT=BOTH				
	Con Targ Set l	iments: EIC bi get has been of buffer time = e	uffer time is 599, lan bserved before no ne xptime - 100 = 190	ger than exptime ved to 2/3 factor						
	Con	tinue use of 1	FP-POS							
	cycl	e 24 comment:	exposure times not	reduced following updated ETC calcule	ations, differences r	not enough to affect orbit	requested.			

6 G160M/162 (1) WD0308-	-565 COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		368 Secs (416 Secs)	
3 (COS.sp.102		1623 A	BUFFER-TIME=26		[==>416.0 Secs ]	
1704)			8; LIEETIME DOS-I			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 79 Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	99, larger than exptime no need to 2/3 factor : 300					
cycle 24 comment: exposure time	s not reduced following updated ETC calcu	lations, difference	s not enough to affect orbit r	equested.		
7 G140L/1280 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		328 Secs (376 Secs)	
(COS.sp.102 1719)		1280 A	8; EP DOC 2:		[==>376.0 Secs ]	
			FP-POS=3;			[2]
			P4;			[2]
			SEGMENT=BOTH			
Comments: ETC buffer time is 45 Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	51, larger than exptime no need to 2/3 factor 5 180					
8 DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)	
				FUV HVLOW HVL OW	[==>]	[2]
Comments: Work-around to efficient	iently schedule the reconfiguration to SEG-	A. Eliminates SPS	5S induced gaps.			
9 G140L/1105 (1) WD0308-	-565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (375 Secs)	
/FUVA (COS sp 102		1105 A	7;		[==>375.0 Secs ]	
1720)			FP-POS=3;			
			SEGMENT=A;			[2]
			P4			
Comments: ETC buffer time is 36 Target has been observed before Set buffer time = exptime - 100 = Continue use of 1 FP-POS	52, larger than exptime no need to 2/3 factor 180					
10 G130M/132 (1) WD0308-	565 COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17		278 Secs (326 Secs)	
//FUVA (COS.sp.102		1327 A	8; ED DOS 2:		[==>326.0 Secs ]	
1693)			FF-PUS=3; LIFETIME DOS-I			[2]
			P4;			[2]
			SEGMENT=A			
Comments: ETC buffer time is 32 Since buffer time larger than exp Continue use of 1 FP-POS	20 sec. Target has been observed before and time use buffer time = $exptime -100$ sec to r	l so no need for 2/2 naximize time on to	3 safety margin. arget = 212 5 pat anough to affect orbits	aquestad		
cycie 24 comment: exposure time	s noi reaucea jouowing updated ETC calci	uations, difference	s not enougn to affect orbit r	equesiea.		



	Proposal 15384, GD71 - Aug	complete (09), completed			Thu Feb 28 16:00:55 GMT 2019					
	Diagnostic Status: Warning									
sit	Scientific Instruments: S/C, COS/FUV, COS/NUV									
ŝ	Special Requirements: SCHED 100%; BETWEEN 14-AUG-2018:00:00:00 AND 27-AUG-2018:00:00:00									
	Comments: exposure 4: GO wa George Chapman added Expos	Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation eeorge Chapman added Exposure 3 Detroined the arrownee time for the C130M/1006 setting to increase its SNP (erry time = 744 s) while remaining within the allocated time								
Diagnostics	(GD71 - Aug complete (09)) W See full description for details. (GD71 - Aug complete (09)) W	Varning (Form): For the best data quality, it is strong Varning (Orbit Planner): ORBITAL VISIBILITY OV	ly recommended that the maximum number of a	allowed FP-POS positions is used	when observing at a given COS CENWAVE setting.					
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(2) GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS					
Irg		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr							
μË		Equinox: J2000	Epoch of Position: 2000							
Fixed	Comments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al. Category=STAR Jescription=[DA] Extended=NO									

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs)	
		(COS.ta.839 574)							[==>]	[1]
	Com	ments: Exptim	e for S/N of 60 is	105.5 sec, using 90 sec leads to S/N of 55.						
	2	G130M/109	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=64			744 Secs (737 Secs)	
		6/FUVB/LP 2			1096 A	4;			[==>737.0 Secs ]	
		(COS.sp.839				FP-POS=3;				
		570)				LIFETIME-POS=L				[1]
						P2				
	Com Set l	nments: FUVB buffer-time = e	only (all ETC war xptime - 100 sec =	nings come from FUVA). = 644 to maximize time on target.						
	3		DARK	S/C, DATA, NONE			QASISTATES COS		1 Secs (1 Secs)	
							FUV HVLOW HVL OW		[==>]	[1]
	Com	ments: Work-a	around to efficient	ly schedule the SEG-B to SEG-A reconfig	uration. Eliminates	s SPSS induced gaps.				•
	4	G130M/109	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			140 Secs (140 Secs)	
		6/FUVA W AVECAL/L			1096 A	SEGMENT=A;			[==>]	
		P2				FLASH=NO;				[1]
es						LIFETIME-POS=L P2				
sur	5	G160M/157	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=11			111 Secs (104 Secs)	
bo		7/FUVA (COS.sp.102			1577 A	1;			[==>104.0 Secs ]	
EX		(000)spirio <u>2</u> 1723)				FP-POS=3;				[1]
						SEGMENT=A;				[1]
						P4				
	Com	ments: FUVA	only (all ETC war	nings come from FUVB).						
	Buff	er-time for FU	VA is 2.35e6/6513	B = 360 sec, which is larger than exp time,	so set buffer time	to exptime.				
	2.35 6513	e6 is the numb 3 cts/sec is the	er of events that e count rate in FUV	ach buffer can record 'A, per ETC calculation above						
	Set <i>k</i>	ouffer-time = e	xptime b/c exptime	e - 100 < 80 which is the minimum exptime	е					
	Cycl	le 24 comment:	· FUVA TDS is she	allower than ETC prediction, so no need t	o update exposure	time (SNR @ 1749 will b	e larger than 13)			
	6	G160M/162	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=16			162 Secs (155 Secs)	
		(COS.sp.102			1623 A	Z; FP-POS-3:			[==>155.0 Secs ]	
		1734)				SEGMENT=A:				m
						LIFETIME-POS=L				[-]
						P4				
	Com	ments: FUVA	only (all ETC war	nings come from FUVB).						
	Buff	er-time for FU	VA is 2.35e6/6513	B = 360 sec, which is larger than exp time,	so set buffer time i	to exptime.				
	2.55 6513	3 cts/sec is the	count rate in FUV	A, per ETC calculation above						
	Set <i>k</i>	buffer-time = e	xptime b/c exptime	e - 100 < 80 which is the minimum exptim	e					
	Cycl	le 24 comment:	FUVA TDS is shu	allower than ETC prediction, so no need t	o update exposure	time (SNR @ 1749 will b	e larger than 13)			



	Proposal 15384, WD0308 - Oc	t complete (10), completed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Warning									
Ż	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							
ics	(WD0308 - Oct complete (10)) v setting. See full description for o	Warning (Form): For the best data quality, it is stro	ongly recommended that the maximum number of allo	wed FP-POS positions is us	sed when observing at a given COS CENWAVE					
ost	(WD0308 - Oct complete (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
(WD0308 - Oct complete (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN										
Dia										
6	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
eta	(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					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
Ĕ		Equinox: J2000	Epoch of Position: 2000							
ed	Comments: Coordinates from C									
i	Category=STAR Description=[DB]									
	Extended=NO									

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
		(839564)					O BASE1B3		[==>]	[1]
	Con	nments: cycle 2	4 comment: exposur	e times not reduced following updated	ETC calculations, o	differences not enough to	o affect orbit requested.			1
	2	G130M/122 2	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			176 Secs (254 Secs)	
		(COS.sp.102			1222 A	FP-POS=3:			[==>254.0  Secs ]	
		1684)				LIFETIME-POS=L				[1]
						P4; SECMENT DOTU				
	Con	nmants: FTC h	uffar tima is 305 sac	Target has been observed before and	so no need for $2/3$ s	SEGMENI=BUIH				
	Sinc Con	ce buffer time la ntinue use of 1 1	arger than exptime u. FP-POS	se buffer time = exptime -100 sec to ma	aximize time on targ	get = 126				
	cycl	le 24 comment:	exposure times not i	reduced following updated ETC calcula	ations, differences n	not enough to affect orbit	requested.		221.5 (200.5 )	
	3	G130M/129 1	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13 1;			$\frac{231 \text{ Secs } (309 \text{ Secs})}{1 - 2300 0 \text{ Secs}}$	
		(COS.sp.102			1291 A	FP-POS=3;			l = -> 509.0 secs j	
		1090)				LIFETIME-POS=L P4;				[1]
						SEGMENT=BOTH				
osures	Sinc Con cycl	ce buffer time la utinue use of 1 1 le 24 comment:	arger than exptime u. FP-POS exposure times not i	se buffer time = exptime -100 sec to ma reduced following updated ETC calcula	aximize time on tars	not enough to affect orbit	requested.			1
ğ	4	G130M/105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=18			285 Secs (363 Secs)	
Ш́		(COS.sp.102			1055 A	J, FP-POS-3			[==>363.0 Secs ]	
		1696)				SEGMENT=BOTH				m
						LIFETIME-POS=L	,			[1]
						P2				
	Con Targ Set l Con	nments: ETC ba get has been ob buffer time = e. ntinue use of 1 1	uffer time is larger th sserved before no nee xptime - 100 = 224 FP-POS	aan exptime (1482) ed to 2/3 factor						
	cycl Whi	le 24 comment: ile the program	exposure times not r is optimized for FU	reduced following updated ETC calcule VA we use the low SNR FUVB data to	ations, differences n constraint the blue	oot enough to affect orbit edge of the wavelength r	requested. ange.			
	5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			264 Secs (342 Secs)	
		(COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;			[==>342.0 Secs ]	
						LIFETIME-POS=L P4;				[1]
						SEGMENT=BOTH				
	Con Targ Set l	nments: ETC bi get has been ob buffer time = e.	uffer time is 599, larg oserved before no nee xptime - 100 = 190	ger than exptime ed to 2/3 factor						
	Con	ntinue use of 1 h	FP-POS							
	cycl	le 24 comment:	exposure times not 1	reduced following updated ETC calcul	ations, differences n	not enough to affect orbit	requested.			

6 G160M/162	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		368 Secs (416 Secs)	
3 (COS.sp.102			1623 A	BUFFER-TIME=26	5	[==>416.0 Secs ]	
1704)				8; LIEETIME DOS-L			[2]
				P4;			[2]
				SEGMENT=BOTH	[		
Comments: ETC b Target has been ol Set buffer time = e Continue use of 1	uffer time is 799, larg oserved before no nee xptime - 100 = 300 FP-POS	er than exptime d to 2/3 factor					
cycle 24 comment:	exposure times not r	educed following updated ETC calcu	lations, differences	not enough to affect orbit	t requested.		
7 G140L/1280	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		328 Secs (376 Secs)	
(COS.sp.102 1719)			1280 A	8; ED DOS-2.		[==>376.0 Secs ]	
,				FP-POS=3;			[2]
				P4;			[2]
				SEGMENT=BOTH	I		
Target has been of Set buffer time = e Continue use of 1	served before no nee xptime - 100 = 180 FP-POS	d to 2/3 factor					
8	DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)	
					OW	[==>]	[2]
Comments: Work-	around to efficiently s	chedule the reconfiguration to SEG-1	A. Eliminates SPS	S induced gaps.			
9 G140L/1105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (375 Secs)	
/FUVA (COS.sp.102			1105 A	/; ED DOS-2.		[==>375.0 Secs ]	
1720)				FP-POS=5; SEGMENT-A:			[2]
				LIFETIME-POS-I			[2]
				P4			
Comments: ETC b Target has been of Set buffer time = e Continue use of 1	uffer time is 362, larg oserved before no nee xptime - 100 = 180 FP-POS	er than exptime d to 2/3 factor					
10 G130M/132	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17		278 Secs (326 Secs)	
(COS.sp.102			1327 A	8; ED DOS - 2:		[==>326.0 Secs ]	
1693)				FF-FUS=3;			[2]
				P4;			[2]
				SEGMENT=A			
Comments: ETC b Since buffer time la Continue use of 1	uffer time is 320 sec. arger than exptime us FP-POS	Target has been observed before and e buffer time = exptime -100 sec to n	so no need for 2/3 paximize time on ta	safety margin. urget = 212			
cycle 24 comment:	exposure times not re	educed following updated ETC calcu	ations, differences	s not enough to affect orbit	t requested.		



	Proposal 15384, GD71 - Oct c	complete (11), completed			Thu Feb 28 16:00:55 GMT 2019					
±.	Diagnostic Status: Warning									
sit	Scientific Instruments: S/C, COS/FUV, COS/NUV									
Ë	Special Requirements: SCHED	100%; BETWEEN 16-OCT-2018:00:00:00 AND 1	2-NOV-2018:00:00:00							
	Comments: exposure 4: GO wa George Chapman added Expos	Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation George Chapman added Exposure 3								
Diagnostics	(GD71 - Oct complete (11)) W. See full description for details. (GD71 - Oct complete (11)) W.	arning (Form): For the best data quality, it is strongl arning (Orbit Planner): ORBITAL VISIBILITY OV	y recommended that the maximum number of al	llowed FP-POS positions is used	when observing at a given COS CENWAVE setting.					
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(2) GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS					
arg		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr							
μË		Equinox: J2000	Epoch of Position: 2000							
Fixed	omments: Use sma RA, DEC amd PM as in proposal 12392 by Bohlin et al. ategory=STAR bescription=[DA] xtended=NO									

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit		
	1	ACQ/IM	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs)			
		(COS.ta.839 574)							[==>]	[1]		
	Com	iments: Exptim	e for S/N of 60 is 105.	5 sec. using 90 sec leads to S/N of 55.								
	2	G130M/109	(2) GD71	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=64			744 Secs (737 Secs)			
		6/FUVB/LP 2			1096 A	4;			[==>737.0 Secs ]			
		(COS.sp.839				FP-POS=3;						
		576)				SEGMENT=B;				[1]		
						P2						
	Com Set l	nments: FUVB buffer-time = e.	only (all ETC warning xptime - 100 sec = 64	gs come from FUVA). 4 to maximize time on target.								
	3		DARK	S/C, DATA, NONE			QASISTATES COS		1 Secs (1 Secs)			
							FUV HVLOW HVL OW		[==>]	[1]		
	Com	ments: Work-a	round to efficiently so	chedule the SEG-B to SEG-A reconfigu	ration. Eliminates	SPSS induced gaps.						
	4	G130M/109	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			140 Secs (140 Secs)			
		6/FUVA W AVECAL/L			1096 A	SEGMENT=A;			[==>]			
		P2				FLASH=NO;				[1]		
res						LIFETIME-POS=L P2						
sul	5	G160M/157	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=11			111 Secs (104 Secs)			
bo		7/FUVA (COS.sp.102			1577 A	l;			[==>104.0 Secs ]			
ш		1723)				FP-POS=3; SECMENT-A:				[1]		
						LIFETIME-POS=L				[1]		
						P4						
	Comments: FUVA only (all ETC warnings come from FUVB).											
	Buff 2.35 6513 Set l	fer-time for FU e6 is the numb 3 cts/sec is the buffer-time = e.	VA is 2.35e6/6513 = 3 er of events that each count rate in FUVA, p xptime b/c exptime - 1	360 sec, which is larger than exp time, buffer can record ver ETC calculation above 00 < 80 which is the minimum exptime	so set buffer time to	o exptime.						
	Cycl	le 24 comment:	FUVA TDS is shallow	wer than ETC prediction, so no need to	o update exposure ti	ime (SNR @ 1749 will b	e larger than 13)			1		
	6	G160M/162 3/FUVA	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=16			162 Secs (155 Secs)			
		(COS.sp.102			1623 A	2, FP-POS=3:			[==>155.0 Secs ]			
		1734)				SEGMENT=A;				[1]		
						LIFETIME-POS=L P4						
	Com	nments: FUVA	only (all ETC warning	gs 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											



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

	Proposal 15384, WD0308 - LP3c	heck (12), failed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Warning									
Ż	Scientific Instruments: S/C, COS/FUV, COS/NUV									
	Special Requirements: SCHED 10	0%; BETWEEN 25-AUG-2018 AND 31-OCT-2	2018							
Diagnostics	(WD0308 - LP3check (12)) Warni See full description for details.	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. ee full description for details.								
~	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
lets	(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					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
Ĕ		Equinox: J2000	Epoch of Position: 2000							
-ixed	Comments: Coordinates from Cha Category=STAR Description=[DB]	rle's proposal								
	Extended=NO									

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

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
	(839304)					O BASEIBS		[==>]	[1]
Con	mments: cycle 2	4 comment: exposure	e times not reduced following updated	ETC calculations, a	lifferences not enough to	affect orbit requested	-	I	
2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			226 Secs (226 Secs)	
	(COS.sp.102			1222 A	FP-POS=3 <sup>.</sup>			[==>]	
	1684)				LIFETIME-POS=L				[1]
					P3;				
C	ETC 1		Town of the state of the former of the former of the		SEGMENT=BOTH				
Sin Cor	nments. ETC bl ce buffer time la ntinue use of 1 H	gjer time is 595 sec. irger than exptime us FP-POS	se buffer time = exptime -100 sec to me	aximize time on targ	get = 126				
<i>cyc</i>	G120M/120	exposure times not r	educed following updated ETC calcule	C120M	DITEED TIME_12	requested.		244 Spag (244 Spag)	
3	1 1	(1) wD0508-505	COS/FUV, TIME-TAG, PSA	1201 A	1;			244  Secs (244  Secs)	
	(COS.sp.102			1291 A	FP-POS=3;			[>]	
	1000)				LIFETIME-POS=L P3:				[1]
					SEGMENT=BOTH				
Con Cyc	te bujjer time ta ntinue use of 1 H le 24 comment:	exposure times not r	educed following updated ETC calculo	ations, differences n	et = 144 ot enough to affect orbit	requested.			1
4	G130M/132	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			312 Secs (312 Secs)	
	(COS.sp.102			1327 A	FP-POS=3.			[==>]	
	1693)				LIFETIME-POS=L				[1]
					SEGMENT=BOTH				
Con Sin Con cyc	nments: ETC bi ce buffer time la ntinue use of 1 F le 24 comment:	tffer time is 320 sec. Irger than exptime us FP-POS exposure times not r	Target has been observed before and s se buffer time = exptime -100 sec to ma reduced following updated ETC calcula	so no need for 2/3 s aximize time on targ ations, differences n	afety margin. get = 212 ot enough to affect orbit	requested.			
Bec	cause this observ	vation is at LP3, "BO	OTH" segments are being used. (For L	.P4 visits, only FUV	A is obtained for cenway	ve 1327.)			
5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			290 Secs (290 Secs)	
	7 (COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;			[==>]	
	1702)				LIFETIME-POS=L P3;				[1]
					SEGMENT=BOTH				
Con Tar Set	mments: ETC bi get has been ob buffer time = ex	ıffer time is 599, larg served before no nee xptime - 100 = 190	ger than exptime ed to 2/3 factor						
Co	ntinue use of 1 H	FP-POS							
сус	le 24 comment:	exposure times not r	educed following updated ETC calculo	ations, differences n	ot enough to affect orbit	requested.			

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

6 G160M/162 (1) WD0308-565 COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;	400 Secs (400 Secs)	
3 (COS.sp.102 1704)	1623 A	BUFFER-TIME=26 8;	[==>]	
1,04)		LIFETIME-POS=L P3;		[2]
		SEGMENT=BOTH		
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 calc	ulations, differences	s not enough to affect orbit requested.		
7 G140L/1280 (1) WD0308-565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22	280 Secs (280 Secs)	
(COS.sp.102 1719)	1280 A	o; FP_POS-3·	[==>]	
		LIFETIME-POS=L		[2]
		P3;		
		SEGMENT=BOTH		
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	1 Secs (1 Secs)	
		FUV HVLOW HVL OW	[==>]	[2]
Comments: Work-around to efficiently schedule the reconfiguration to SEG	-A. Eliminates SPS	S induced gaps.		•
9 G140L/1105 (1) WD0308-565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22	327 Secs (327 Secs)	
/FUVA (COS.sp.102	1105 A	7; ED DOS-2:	[==>]	
1720)		FF-FOS=5; SEGMENT-A·		[2]
		LIFETIME-POS=L		[2]
		P3		
Comments: EIC 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				



## Proposal 15384 - WD0308 - LP3check (56) - COS FUV Spectroscopic Sensitivity Monitoring

	Proposal 15384, WD0308 - LP30	check (56), failed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Warning									
Ϊ	Scientific Instruments: S/C, COS/FUV, COS/NUV									
	Special Requirements: SCHED 10	00%; BETWEEN 25-AUG-2018 AND 12-NOV-2	2018							
Diagnostics	(WD0308 - LP3check (56)) Warni See full description for details.	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.								
6	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
lets	(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					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
Ĕ		Equinox: J2000	Epoch of Position: 2000							
ed	Comments: Coordinates from Charle's proposal									
iÊ	Description=[DB]									
	Extended=NO									

## Proposal 15384 - WD0308 - LP3check (56) - COS FUV Spectroscopic Sensitivity Monitoring

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
	(839564)					O BASE1B3		[==>]	[1]
Ca	mments: cycle 2	4 comment: exposure	e times not reduced following updated	ETC calculations, a	lifferences not enough to	affect orbit requested.			
2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			226 Secs (226 Secs)	
	(COS.sp.102			1222 A	FP-POS=3.			[==>]	
	1684)				LIFETIME-POS=L				[1]
					SEGMENT=BOTH				
Ca Sir Ca	omments: ETC bi ace buffer time la ontinue use of 1 1	ıffer time is 395 sec. ırger than exptime us FP-POS	Target has been observed before and s se buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 126				
cy	cle 24 comment:	exposure times not r	educed following updated ETC calcul	ations, differences n	ot enough to affect orbit	requested.			
3	G130M/129	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13			244 Secs (244 Secs)	
	(COS.sp.102			1291 A	I;			[==>]	
	1690)				LIFETIME-POS=L P3.				[1]
					SEGMENT=BOTH				
<i>cy</i> 4	cle 24 comment: G130M/132	exposure times not re (1) WD0308-565	educed following updated ETC calcule COS/FUV, TIME-TAG, PSA	ations, differences n G130M	ot enough to affect orbit BUFFER-TIME=17	requested.		312 Secs (312 Secs)	
-	7			1327 A	8;			[==>]	
	(COS.sp.102 1693)				FP-POS=3;				
	,				LIFETIME-POS=L P3;				[1]
					SEGMENT=BOTH				
Ca Sir Ca	mments: ETC bi ice buffer time lo intinue use of 1 l	uffer time is 320 sec. Irger than exptime us FP-POS	Target has been observed before and se buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 212				
cy	cle 24 comment:	exposure times not r	educed following updated ETC calcul	ations, differences n	ot enough to affect orbit	requested.			
Be	cause this obser	vation is at LP3, "BO	OTH" segments are being used. (For L	P4 visits, only FUV	'A is obtained for cenway	ve 1327.)			1
5	G160M/157 7	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			290 Secs (290 Secs)	
	(COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;			[==>]	
					LIFETIME-POS=L P3;				[1]
Ca Ta Se	mments: ETC bi rget has been ob t buffer time = e.	ıffer time is 599, larg served before no nee xptime - 100 = 190	ger than exptime ed to 2/3 factor		SEGMENT=BOTH				<u> </u>
Ca	ntinue use of 1 I	FP-POS							
cy	cle 24 comment:	exposure times not r	educed following updated ETC calculo	ations, differences n	ot enough to affect orbit	requested.			

## Proposal 15384 - WD0308 - LP3check (56) - COS FUV Spectroscopic Sensitivity Monitoring

6	G160M/162 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		400 Secs (400 Secs)	
	3 (COS.sp.102 1704)		1623 A	BUFFER-TIME=26 8;		[==>]	
	1704)			LIFETIME-POS=L P3;			[2]
				SEGMENT=BOTH			
C Ta Sa C	omments: ETC buffer time is 799, large arget has been observed before no neea et buffer time = exptime - 100 = 300 ontinue use of 1 FP-POS	er than exptime l to 2/3 factor					
cy	cle 24 comment: exposure times not re	duced following updated ETC calcul	ations, differences n	ot enough to affect orbit	requested.		
7	G140L/1280 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		280 Secs (280 Secs)	
	1719)		1280 A	o, FP-POS=3 <sup>.</sup>		[==>]	
				LIFETIME-POS=L			[2]
				Р3;			
				SEGMENT=BOTH			
C Ta Sa C	omments: ETC buffer time is 451, large trget has been observed before no need et buffer time = exptime - 100 = 180 ontinue use of 1 FP-POS	er than exptime I to 2/3 factor					
8	DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)	
					FUV HVLOW HVL OW	[==>]	[2]
С	omments: Work-around to efficiently so	chedule the reconfiguration to SEG-A	. Eliminates SPSS i	induced gaps.			
9	G140L/1105 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (327 Secs)	
	/FUVA (COS.sp.102		1105 A	7; ED DOS-2:		[==>]	
	1720)			FP-POS=3; SEGMENT-A			[2]
				LIFETIME-POS=L			[2]
				P3			
C Ta Sa C	omments: ETC buffer time is 362, large arget has been observed before no neea et buffer time = exptime - 100 = 180 ontinue use of 1 FP-POS	er than exptime I to 2/3 factor					



## Proposal 15384 - WD0308 - LP3check (57) - COS FUV Spectroscopic Sensitivity Monitoring

	Proposal 15384, WD0308 - LP3c	heck (57), failed			Thu Feb 28 16:00:55 GMT 2019					
sit	Diagnostic Status: Warning									
ż	Scientific Instruments: S/C, COS/H	FUV, COS/NUV								
	Special Requirements: SCHED 10	0%; BETWEEN 26-DEC-2018 AND 08-JAN-2	019							
Diagnostics	(WD0308 - LP3check (57)) Warni See full description for details.	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. ee full description for details.								
10	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(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					
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr							
Ĕ		Equinox: J2000	Epoch of Position: 2000							
ed .	Comments: Coordinates from Cha	rle's proposal								
Ē	Category=STAR Description=[DB]									
	Extended=NO									

## Proposal 15384 - WD0308 - LP3check (57) - COS FUV Spectroscopic Sensitivity Monitoring

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
	(839564)					O BASE1B3		[==>]	[1]
С	omments: cycle 2	4 comment: exposure	e times not reduced following updated	ETC calculations, a	differences not enough to	affect orbit requested.			1
2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			226 Secs (226 Secs)	
	(COS.sp.102			1222 A	FP-POS=3.			[==>]	
	1684)				LIFETIME-POS=L P3:				[1]
					SEGMENT=BOTH				
C Si C	omments: ETC bi nce buffer time lo ontinue use of 1 1	uffer time is 395 sec. arger than exptime us FP-POS	Target has been observed before and s se buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 126				
cy	cle 24 comment:	exposure times not r	educed following updated ETC calcul	ations, differences n	ot enough to affect orbit	requested.			
3	G130M/129	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=13			244 Secs (244 Secs)	
	(COS.sp.102			1291 A	FP-POS=3.			[==>]	
	1690)				LIFETIME-POS=L P3;				[1]
					SEGMENT=BOTH				
<u>- cy</u> 4	<u>cle 24 comment:</u> G130M/132 7 (COS.sp.102	exposure times not r (1) WD0308-565	educed following updated ETC calcula COS/FUV, TIME-TAG, PSA	ations, differences n G130M 1327 A	not enough to affect orbit BUFFER-TIME=17 8; FP-POS=3;	requested.		312 Secs (312 Secs) [==>]	
	1693)				LIFETIME-POS=L P3; SEGMENT=BOTH				[1]
C Si C	omments: ETC bi nce buffer time la ontinue use of 1 h	uffer time is 320 sec. arger than exptime us FP-POS	Target has been observed before and s se buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 212				
cy	cle 24 comment:	exposure times not r	educed following updated ETC calcula	ations, differences n	not enough to affect orbit	requested.			
B	ecause this obser	vation is at LP3, "BC	OTH" segments are being used. (For L	.P4 visits, only FUV	'A is obtained for cenway	ve 1327.)			1
5	G160M/157 7	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			290 Secs (290 Secs)	
	(COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;			[==>]	
					LIFETIME-POS=L P3;				[1]
C Ta Sa	omments: ETC bi arget has been ob t buffer time = e.	uffer time is 599, larg sserved before no nee xptime - 100 = 190	ger than exptime ed to 2/3 factor		SEGMENT=BOTH				<u> </u>
С	ontinue use of 1 I	FP-POS							
cy	cle 24 comment:	exposure times not r	reduced following updated ETC calcula	ations, differences n	not enough to affect orbit	requested.			

# Proposal 15384 - WD0308 - LP3check (57) - COS FUV Spectroscopic Sensitivity Monitoring

6 G160M/162 (1) WD0308-565 COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;	400 Secs (400 Secs)	
3 (COS.sp.102 1704)	1623 A	BUFFER-TIME=26 8;	[==>]	
1,04)		LIFETIME-POS=L P3;		[2]
		SEGMENT=BOTH		
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 calc	ulations, differences	s not enough to affect orbit requested.		
7 G140L/1280 (1) WD0308-565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22	280 Secs (280 Secs)	
(COS.sp.102 1719)	1280 A	o; FP_POS-3·	[==>]	
		LIFETIME-POS=L		[2]
		P3;		
		SEGMENT=BOTH		
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	1 Secs (1 Secs)	
		FUV HVLOW HVL OW	[==>]	[2]
Comments: Work-around to efficiently schedule the reconfiguration to SEG	-A. Eliminates SPS	S induced gaps.		•
9 G140L/1105 (1) WD0308-565 COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22	327 Secs (327 Secs)	
/FUVA (COS.sp.102	1105 A	7; ED DOS-2:	[==>]	
1720)		FF-FOS=5; SEGMENT-A·		[2]
		LIFETIME-POS=L		[2]
		P3		
Comments: EIC 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				



# Proposal 15384 - WD0308 - LP3check (58) - COS FUV Spectroscopic Sensitivity Monitoring

	Proposal 15384, WD0308 - LP3c	heck (58), completed			Thu Feb 28 16:00:55 GMT 2019				
sit	Diagnostic Status: Warning								
٧i	Scientific Instruments: S/C, COS/H	FUV, COS/NUV							
	Special Requirements: SCHED 10	0%; BETWEEN 21-FEB-2019 AND 05-MAR-2	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. ee full description for details.								
6	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
ets	(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				
arg		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 0.0643 arcsec/yr						
Ĕ		Equinox: J2000	Epoch of Position: 2000						
ed	Comments: Coordinates from Cha	urle's proposal							
Ě	Category=STAR Description=[DB]								
	Extended=NO								

### Proposal 15384 - WD0308 - LP3check (58) - COS FUV Spectroscopic Sensitivity Monitoring

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
	(839304)					O BASEIBS		[==>]	[1]
Cor	nments: cycle 2-	4 comment: exposure	times not reduced following updated	ETC calculations, a	lifferences not enough to	affect orbit requested.			
2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			226 Secs (226 Secs)	
	(COS.sp.102			1222 A	6, FP-POS=3 <sup>.</sup>			[==>]	
	1684)				LIFETIME-POS=L				[1]
					P3;				
6	ETC I	<i>«</i>	<b></b>		SEGMENT=BOTH				
Sino Cor	tinnents. ETC bl ce buffer time la ttinue use of 1 F	gjer tune is 595 sec. rger than exptime us P-POS	e buffer time = exptime -100 sec to mo	iximize time on targ	get = 126				
cycl	C120M/120	exposure times not re	educed following updated ETC calcule	citions, differences n	ot enough to affect orbit	requested.		244 Saga (244 Saga)	T
3	1 1	(1) wD0308-565	COS/FUV, TIME-TAG, PSA	1201 A	1;			244  Secs (244  Secs)	
	(COS.sp.102			1291 A	FP-POS=3;			[==>]	
	1090)				LIFETIME-POS=L P3·				[1]
					SEGMENT=BOTH				
Sind Cor cycl	ce buffer time la ttinue use of 1 F le 24 comment:	rger than exptime us P-POS exposure times not re	e buffer time = exptime -100 sec to mo	utions, differences n	et = 144 ot enough to affect orbit	requested.			
4	G130M/132	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			312 Secs (312 Secs)	
	(COS.sp.102			1327 A	$\delta$ ;			[==>]	
	1693)				I IFETIME_POS-I				[1]
					P3;				[1]
					SEGMENT=BOTH				
Cor Sine Cor	nments: ETC bu ce buffer time la utinue use of 1 F	uffer time is 320 sec. Trger than exptime us TP-POS	Target has been observed before and s e buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 212				
сус	le 24 comment:	exposure times not re	educed following updated ETC calculo	utions, differences n	ot enough to affect orbit	requested.			
Bec	ause this observ	vation is at LP3, "BO	TH" segments are being used. (For L	P4 visits, only FUV	'A is obtained for cenway	ve 1327.)			
5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			290 Secs (290 Secs)	<u> </u>
	(COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;			[==>]	
	1702)				LIFETIME-POS=L P3:				[1]
					SEGMENT=BOTH				
Cor Tar Set	nments: ETC bu get has been ob buffer time = ex	uffer time is 599, larg served before no nee cptime - 100 = 190	er than exptime d to 2/3 factor						·
Cor	ntinue use of 1 F	P-POS							
сус	le 24 comment:	exposure times not re	educed following updated ETC calculd	utions, differences n	ot enough to affect orbit	requested.			

# Proposal 15384 - WD0308 - LP3check (58) - COS FUV Spectroscopic Sensitivity Monitoring

6 G160	0M/162 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		400 Secs (400 Secs)				
3 (COS	S.sp.102		1623 A	BUFFER-TIME=26 8;		[==>]				
1704	)			LIFETIME-POS=L P3;			[2]			
				SEGMENT=BOTH						
Comments. Target has Set buffer t Continue u	: ETC buffer time is 799, larg, been observed before no neee ime = exptime - 100 = 300 se of 1 FP-POS	er than exptime 1 to 2/3 factor								
cycle 24 co	omment: exposure times not re	educed following updated ETC calcul	ations, differences n	not enough to affect orbit r	requested.					
7 G140	DL/1280 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		280 Secs (280 Secs)				
1719	)		1280 A	o; FP-POS-3·		[==>]				
				LIFETIME-POS=L			[2]			
				РЗ;						
				SEGMENT=BOTH						
Comments. Target has Set buffer t Continue u	: ETC buffer time is 451, large been observed before no need time = exptime - 100 = 180 use of 1 FP-POS	er than exptime d to 2/3 factor								
8	DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)				
					FUV HVLOW HVL OW	[==>]	[2]			
Comments.	: Work-around to efficiently se	chedule the reconfiguration to SEG-A	. Eliminates SPSS i	induced gaps.						
9 G140	0L/1105 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (327 Secs)				
/FUV (COS	/A S.sp.102		1105 A	7; ED DOS-2.		[==>]				
1720	)			SEGMENT-A			[2]			
				LIFETIME-POS=L			[2]			
				P3						
Comments Target has Set buffer t Continue u	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									



## Proposal 15384 - WD0308 - LP3check (59) - COS FUV Spectroscopic Sensitivity Monitoring

	Proposal 15384, WD0308 - LP3cl	neck (59)		Thu Feb 28 16:00:55 GMT 2019						
sit	Diagnostic Status: Warning									
Ϊ	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.									
	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(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					
arg	Dec: -56 23 49.41 (-56.39706d)		Proper Motion Dec: 0.0643 arcsec/yr	Proper Motion Dec: 0.0643 arcsec/yr						
Ĕ										
(ed	Comments: Coordinates from Charle's proposal									
Ê	Category=STAR Description=[DB]									
	Extended=NO									

### Proposal 15384 - WD0308 - LP3check (59) - COS FUV Spectroscopic Sensitivity Monitoring

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA		GS ACQ SCENARI		45 Secs (45 Secs)	
	(839304)					O BASEIBS		[==>]	[1]
Cor	nments: cycle 2-	4 comment: exposure	times not reduced following updated	ETC calculations, a	lifferences not enough to	affect orbit requested			
2	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			226 Secs (226 Secs)	
	(COS.sp.102			1222 A	6, FP-POS=3 <sup>.</sup>			[==>]	
	1684)				LIFETIME-POS=L				[1]
					P3;				
6	ETC I	<i>«</i>	<b>—</b>		SEGMENT=BOTH				
Sino Cor	tinnents. ETC bl ce buffer time la ttinue use of 1 F	gjer tune is 595 sec. rger than exptime us P-POS	e buffer time = exptime -100 sec to mo	iximize time on targ	get = 126				
cyci 2	C120M/120	exposure times not re	educed following updated ETC calcule	c120M	ot enough to affect orbit	requested.		244 Saga (244 Saga)	
3	1 1	(1) wD0308-565	COS/FUV, TIME-TAG, PSA	1201 A	1;			244  Secs (244  Secs)	
	(COS.sp.102			1291 A	FP-POS=3;			[==>]	
	1090)				LIFETIME-POS=L P3·				[1]
					SEGMENT=BOTH				
Sind Cor cycl	ce buffer time la ntinue use of 1 F le 24 comment:	rger than exptime us P-POS exposure times not re	e buffer time = exptime -100 sec to mo educed following updated ETC calculo	uximize time on targ	ot enough to affect orbit	requested.			1
. 4	G130M/132	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=17			312 Secs (312 Secs)	
	(COS.sp.102			1327 A	$\delta$ ;			[==>]	
	1693)				I IFETIME_POS-I				[1]
					P3;				[1]
					SEGMENT=BOTH				
Cor Sino Cor	nments: ETC bu ce buffer time la utinue use of 1 F	uffer time is 320 sec. Trger than exptime us TP-POS	Target has been observed before and s e buffer time = exptime -100 sec to ma	so no need for 2/3 s aximize time on targ	afety margin. get = 212				
сус	le 24 comment:	exposure times not re	educed following updated ETC calculo	utions, differences n	ot enough to affect orbit	requested.			
Bec	ause this observ	vation is at LP3, "BO	TH" segments are being used. (For L	P4 visits, only FUV	'A is obtained for cenway	ve 1327.)			
5	G160M/157	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			290 Secs (290 Secs)	-
	(COS.sp.102 1702)			1577 A	BUFFER-TIME=16 4;			[==>]	
	1702)				LIFETIME-POS=L P3:				[1]
					SEGMENT=BOTH				
Cor Tar Set	nments: ETC bu get has been ob buffer time = ex	tffer time is 599, larg served before no nee cptime - 100 = 190	er than exptime d to 2/3 factor						
Cor	ntinue use of 1 F	P-POS							
сус	le 24 comment:	exposure times not re	educed following updated ETC calculd	utions, differences n	ot enough to affect orbit	requested.			

# Proposal 15384 - WD0308 - LP3check (59) - COS FUV Spectroscopic Sensitivity Monitoring

6 G160	0M/162 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;		400 Secs (400 Secs)				
3 (COS	S.sp.102		1623 A	BUFFER-TIME=26 8;		[==>]				
1704	)			LIFETIME-POS=L P3;			[2]			
				SEGMENT=BOTH						
Comments. Target has Set buffer t Continue u	: ETC buffer time is 799, larg, been observed before no neee ime = exptime - 100 = 300 se of 1 FP-POS	er than exptime 1 to 2/3 factor								
cycle 24 co	omment: exposure times not re	educed following updated ETC calcul	ations, differences n	not enough to affect orbit r	requested.					
7 G140	DL/1280 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		280 Secs (280 Secs)				
1719	)		1280 A	o; FP-POS-3·		[==>]				
				LIFETIME-POS=L			[2]			
				РЗ;						
				SEGMENT=BOTH						
Comments. Target has Set buffer t Continue u	: ETC buffer time is 451, large been observed before no need time = exptime - 100 = 180 use of 1 FP-POS	er than exptime d to 2/3 factor								
8	DARK	S/C, DATA, NONE			QASISTATES COS	1 Secs (1 Secs)				
					FUV HVLOW HVL OW	[==>]	[2]			
Comments.	: Work-around to efficiently se	chedule the reconfiguration to SEG-A	. Eliminates SPSS i	induced gaps.						
9 G140	0L/1105 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22		327 Secs (327 Secs)				
/FUV (COS	/A S.sp.102		1105 A	7; ED DOS-2.		[==>]				
1720	)			SEGMENT-A			[2]			
				LIFETIME-POS=L			[2]			
				P3						
Comments Target has Set buffer t Continue u	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									



#### Proposal 15384 - GD71 - LP3check (13) - COS FUV Spectroscopic Sensitivity Monitoring

	Proposal 15384, GD71 - LP3c	heck (13), completed			Thu Feb 28 16:00:55 GMT 2019					
	Diagnostic Status: Warning									
sit	Scientific Instruments: COS/FUV, COS/NUV									
Ë	special Requirements: SCHED 100%; BETWEEN 25-AUG-2018 AND 31-OCT-2018									
	Comments: exposure 4: GO wa George Chapman added Expose Optimized the exposure time for	Comments: exposure 4: GO wavecal to calculate the OSM shifts of the G130M/1096/FUVB observation George Chapman added Exposure 3 Dotimized the exposure time for the G130M/1096 setting to increase its SNR (exp time = 744 s) while remaining within the allocated time.								
stics	(GD71 - LP3check (13)) Warni full description for details.	ng (Form): For the best data quality, it is strongly re	ecommended that the maximum number of allow	ved FP-POS positions is used whe	en observing at a given COS CENWAVE setting. See					
Diagno										
<i>(</i> 0	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
ets	(2) GD71	RA: 05 52 27.6100 (88.1150417d)	Proper Motion RA: 85 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS					
arg		Dec: +15 53 13.80 (15.88717d)	Proper Motion Dec: -174 mas/yr	Proper Motion Dec: -174 mas/yr						
μË	Equinox: J2000 Epoch of Position: 2000									
ed	Comments: Use sma RA, DEC a	amd PM as in proposal 12392 by Bohlin et al.								
i. L	Category=STAR Description=[DA]									
Extended=NO										

## Proposal 15384 - GD71 - LP3check (13) - COS FUV Spectroscopic Sensitivity Monitoring

	# Lal (E]	bel [C Run]	Target	Config,Mode,A	perture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1 AC	Q/IM	(2) GD71	COS/NUV, ACC	/IMAGE, BOA	MIRRORB				90 Secs (90 Secs)	
	574	) )								[==>]	[1]
	Commen	ts: Exptin	ne for S/N of	60 is 105.5 sec, using 90 sec	leads to S/N of 55.						
	2 G1	60M/157	(2) GD71	COS/FUV, TIM	E-TAG, PSA	G160M	BUFFER-TIME=11			111 Secs (213 Secs)	
	//F (CC	UVA DS.sp.102				1577 A	I;			[==>213.0 Secs ]	
	172	23)					FF-POS=5; SEGMENT-A				[1]
							LIFETIME-POS=L				[1]
	Common	40. EIIVA	only (all E	Commings come from EUV	<b>D</b> )		P3				
ŝ	Comment	is. POVA	oniy (uu E1	C warnings come from 1 0 v	<i>D)</i> .						
Exposure	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										
<b>—</b>	Cycle 24	<u>comment</u>	(2) CD71	S is shallower than ETC pred	liction, so no need i	to update exposure	time (SNR @ 1749 will t	be larger than 13)		1(2 Same (2(4 Same))	
	3 GIO 3/F	UVA	(2) GD/1	COS/FUV, TIM	COS/FUV, TIME-TAG, PSA	1623 A	2;			102  Secs (204  Secs)	
	(CC 173	OS.sp.102			1025 A	FP-POS=3;			[		
	1754)					SEGMENT=A;	SEGMENT=A;			[1]	
					LIFETIME-POS=L						
	Comments: FUVA only (all ETC warnings come from FUVB).										
	Buffer-tir 2.35e6 is 6513 cts/ Set buffer	ne for FU the numb sec is the r-time = e	VA is 2.35e er of events count rate i xptime b/c e	6/6513 = 360 sec, which is la that each buffer can record n FUVA, per ETC calculatio exptime - 100 < 80 which is t	urger than exp time n above he minimum exptim	, so set buffer time i ne	to exptime.				
	Cycle 24	comment	FUVA TD	S is shallower than ETC pred	liction, so no need i	to update exposure	time (SNR @ 1749 will l	be larger than 13)			
		Orbit 1 Pointing Maneuver Pointing Maneuver Pointing Maneuver									
				<b>€</b> •• <b>}</b>	Exp. 3						
e	GS Acq Unused Orbital Visibility = 1311										
t di		Exp	o. 1	••• Exp. 2	Home		Occultati	ion			
truc				•••••••							
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