

16832 - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Cycle: 29, Proposal Category: CAL/COS (Availability Mode: RESTRICTED)

INVESTIGATORS

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VISITS

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
01	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	04-Oct-2021 07:01:00.0	yes
02	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	04-Oct-2021 07:01:02.0	yes
03	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	04-Oct-2021 07:01:05.0	yes
04	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	04-Oct-2021 07:01:06.0	yes

Proposal 16832 (STScI Edit Number: 0, Created: Monday, October 4, 2021 at 6:01:19 AM Eastern Standard Time) - Overview

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
05	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	04-Oct-2021 07:01:08.0	yes
06	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	04-Oct-2021 07:01:10.0	yes
07	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	04-Oct-2021 07:01:13.0	yes
08	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	04-Oct-2021 07:01:15.0	yes
09	(2) GD71 DARK WAVE	COS/FUV COS/NUV S/C	2	04-Oct-2021 07:01:17.0	yes
10	(1) WD0308-565 DARK	COS/FUV COS/NUV S/C	3	04-Oct-2021 07:01:19.0	yes

26 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. Each cycle a calibration proposal to monitor the sensitivity of each FUV grating mode at several cenwave settings is implemented. The monitor runs on an approximate schedule of one set of visits every two months. This program is contingency program that will be triggered in the case that the sensitivity of any grating/mode is found to be rapidly decreasing and therefore requiring a higher cadence of observations.

OBSERVING DESCRIPTION

Proposal 16832 (STScI Edit Number: 0, Created: Monday, October 4, 2021 at 6:01:19 AM Eastern Standard Time) - Overview The description below is from program 16324, the main COS FUV Spectroscopic Sensitivity Monitor for Cycle 28, modified with the addition of cenwave G160M/1611. This is a contingency program, and the exposure sequence in each visit are identical to those in the main program. However, there are no "between" constraints as yet specified for each of these visits. If it is necessary to trigger the contigency observations, the required dates will be provided.

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

Each sequence consists of 5 orbits: a 3 orbit visit (target WD0308-565) that covers

G130M/1055/FUVA,

G130M/1222,

G130M/1291,

G130M/1327/FUVA,

G160M/1533/FUVB

G160M/1577/FUVB,

G160M/1611/FUVB,

G160M/1623/FUVB,

G140L/800/FUVA,

G140L/1105/FUVA,

G140L/1280,

and a 2 orbit visit (target GD71) that covers

G130M/1096/FUVB,

G160M/1533/FUVA,

G160M/1577/FUVA,

G160M/1611/FUVA,

G160M/1623/FUVA.

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

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

G160M long exposures move to LP6 in October 2022 (visit 10).

SNR requirements:

- The general requirement is for an SNR of 15 per resel at the wavelength of least sensitivity for the standard modes, and SNR of 15 per resel beyond some minimum wavelength for the blue modes and c1222. The G140L/800 and 1280 modes have slightly different criteria, to provide SNR of >~5 per resel at wavelengths below ~1080 Ang.
- The aim is to obtaine TDS calibration better than 2% for standard modes and 10% for blue modes.

ETC calculations:

- The ETC calculations use CALSPEC standard model versions wd0308_565_mod_003.fits and gd71_mod_010.fits against which the TDS model slopes are referenced.
- The ETC calculations are specified by requiring SNR of 15 at specific wavelengths, except for the following:

G140L/800 SNR of 6 per resel at 1045 Ang (only FUVA is used)

G140L/1280 SNR of 12 per resel at 1090 Ang (lies on FUVB)

- For the blue modes and c1222, the wavelengths specified for SNR of 15 are:

990 Ang for c1096 (Only FUVB is used)

1120 Ang for c1055 (lies on FUVA)

1130 Ang for c1222 (lies on FUVB)

Proposal 16832 (STScI Edit Number: 0, Created: Monday, October 4, 2021 at 6:01:19 AM Eastern Standard Time) - Overview Time constraints:

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

The exposure times and organization of visits follows the scheme used in Cycle 28, with the exception of the exposure times for cenwaves 1055, 1096, 1280, 1577/B and 1623/B which have been updated to reflect the most recent exposure times following updates to the TDSTAB and FLUXTAB. As in Cycle 28, for all but one set of the WD0308-565 observations using G160M, the specifications now are SEGMENT=B (i.e. segment A is turned off). The one exception is the June sequence (visit 07) for which the specifications are SEGMENT=BOTH for these modes, because GD71 is not available during this period. In Cycle 29, an additional NUV ACQ/IMAGE was added at the beginning of the second orbit to protect against guide star reaquisition failures.

Proposal 16832 - WD0308-C1 (01) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, WD0308-C1 (01)

Diagnostic Status: No Diagnostics
Scientific Instruments: S/C, COS/FUV, COS/NUV
Special Requirements: SCHED 100%

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

	Con	nments: All G100M observati	ons are with SEGMEN1 = B (i.e. segment A is ti	irnea off).			
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
ets	(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS	
۱ğ)		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr			
⊒ ⊒			Equinox: J2000	Epoch of Position: 2000			
Fixed	Con Prop	nments: Coordinates carried of oper motions changed to mas/y segory=STAR	over from Cycle 25 proposal, checked against SI vr, from SIMBAD, also using the GAIA DR2 cata	MBAD, which uses the GAIA DR2 catalog. llog.			
Ľ	Des	escription=[DB] ended=NO					

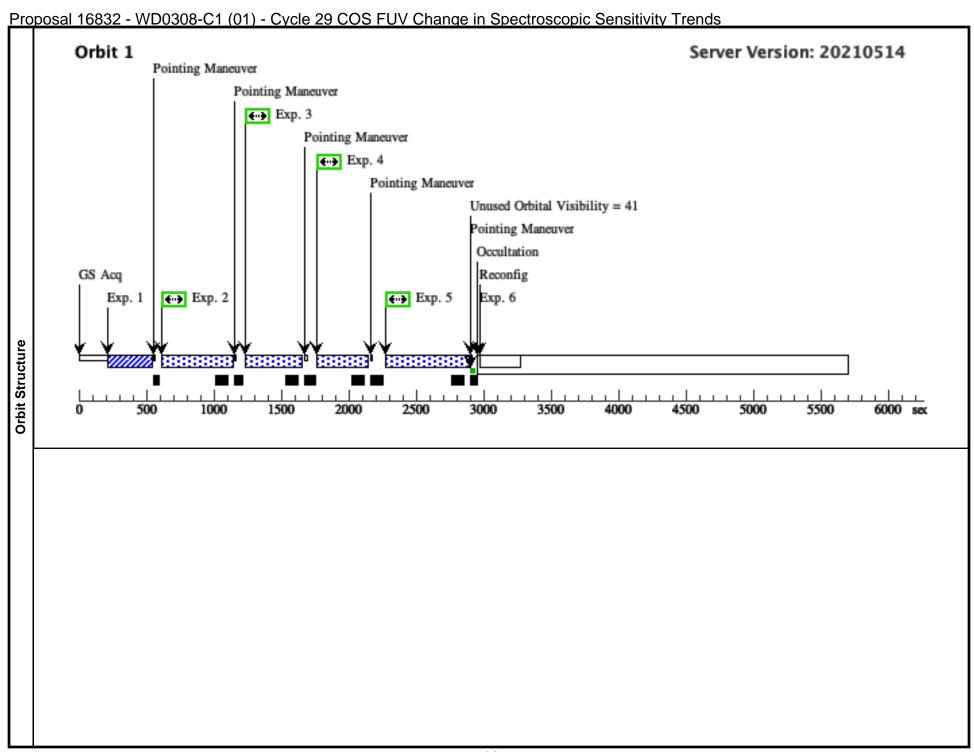
Proposal 16832 - WD0308-C1 (01) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

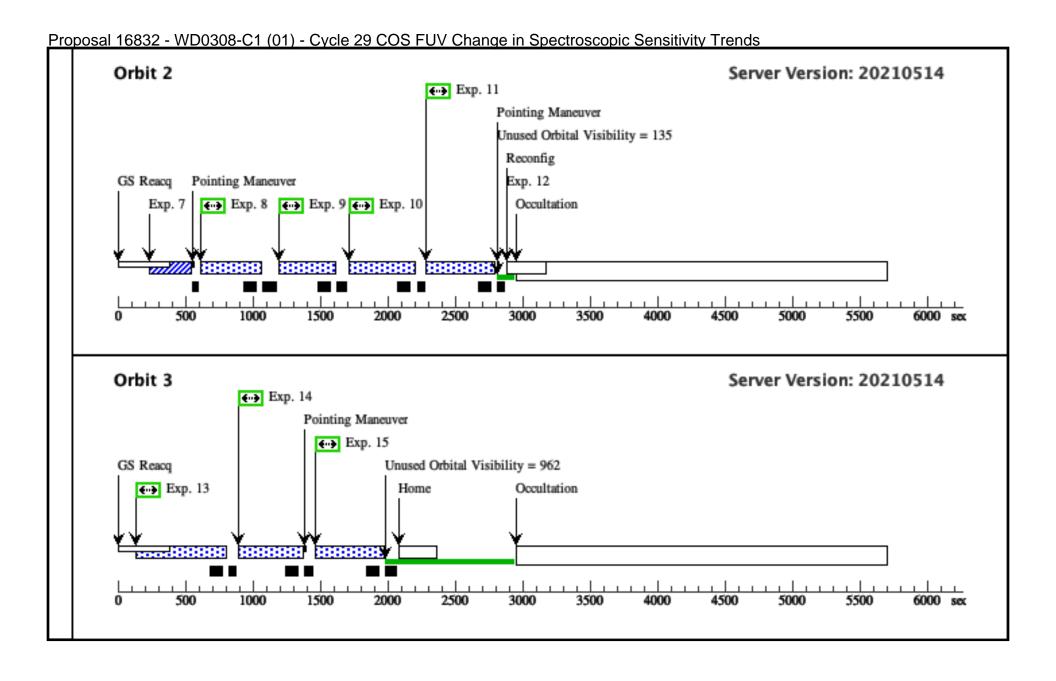
π	Label (ETC Run)	Target	C 1 (01) - Cycle 29 COS Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)	
	(839564)							[==>]	[1]
Com Cycl	ments: cycle 2 e 28 comment	24 comment: exposure : we continue to use t	e times not reduced following updated the same exposure time since difference	ETC calculations, a es do not affect orb	differences not enough to it request.	affect orbit requeste	ed.		
2	G130M/105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=20			318 Secs (318 Secs)	
	5/LP2 (COS.sp.154			1055 A	8;			[==>]	
	0024)				FP-POS=3; SEGMENT=BOTH:				[1]
					LIFETIME-POS=L	,			[1]
					P2				
Com	ments: Cycle	29 comment: exposur	e time updated following blue modes T	DS and FLUXTAB	update.				
	buffer time is ouffer time = e	1377 sec exptime - 110 sec							
3	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=15			267 Secs (267 Secs)	
	2/LP4 (COS.sp.145	;		1222 A	7;			[==>]	
	7646)				FP-POS=3; LIFETIME-POS=L				[1]
					P4;				[1]
					SEGMENT=BOTH				
		uffer time is 392 sec. exptime - 110 sec							
4		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=12			236 Secs (236 Secs)	
	1/LP5 (COS.sp.145	i		1291 A	6;			[==>]	
	7647)				FP-POS=3; LIFETIME-POS=L				[1]
					P5;				[1]
					SEGMENT=BOTH				
		uffer time is 323 sec. exptime - 110 sec							
5		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=29			401 Secs (401 Secs)	
	/LP3 (COS.sp.154			1280 A	1; FP-POS=3;			[==>]	
	0033)				LIFETIME-POS=L				[1]
					P3;				[1]
					SEGMENT=BOTH				
		uffer time is 503 sec. exptime - 110 sec							
6		DARK	S/C, DATA, NONE			QASISTATES CC	os	1 Secs (1 Secs)	
						FUV HVLOW HV OW	'L	[==>]	[1]
	ments: Work-	around to efficiently	schedule the reconfiguration to SEG-A.	Eliminates SPSS	induced gaps.				
Com		(1) WD0200 565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)	
<i>Com</i> 7	ACQ/IM (839564)	(1) WD0308-565	000/1/0/,1100/11/102,2011					` ,	_

Proposal 16832 - WD0308-C1 (01) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends G160M/153 (1) WD0308-565 FP-POS=3; 223 Secs (223 Secs) COS/FUV, TIME-TAG, PSA G160M 3/B/LP4 1533 A BUFFER-TIME=11 *[==>1* (COS.sp.145 7649) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec. G160M/157 (1) WD0308-565 FP-POS=3; COS/FUV, TIME-TAG, PSA G160M 291 Secs (291 Secs) 7/B/LP4 1577 A [==>] BUFFER-TIME=18 (COS.sp.154 0036) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 secG160M/161 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 360 Secs (360 Secs) 1/B/LP4 1611 A BUFFER-TIME=25 f = = > 1(COS.sp.154 0046) LIFETIME-POS=L [2] SEGMENT=B Comments: ETC buffer time is 755 sec. Set buffer time = exptime - 110 secG160M/162 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 388 Secs (388 Secs) 3/B/LP4 1623 A BUFFER-TIME=27 I = = > 1(COS.sp.154 0050) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 814 sec. Set buffer time = exptime - 110 sec12 DARK S/C, DATA, NONE **OASISTATES COS** 1 Secs (1 Secs) FUV HVLOW HVL *[==>1* [2] OW Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps. G140L/800/ (1) WD0308-565 COS/FUV, TIME-TAG, PSA G140L BUFFER-TIME=25 367 Secs (367 Secs) FUVA/LP3 7; 800 A [==>] (COS.sp.145 FP-POS=3; 7778) SEGMENT=A; [3] LIFETIME-POS=L Comments: ETC buffer time is 350 sec. Set buffer time = exptime - 110 sec

Proposal 16832 - WD0308-C1 (01) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

14 G140L/1105 (1) WD0308-565 /FUVA/LP3 (COS.sp.145 7846)	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=22 2; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P3	332 Secs (332 Secs) [==>]	[3]
Comments: ETC buffer time is 358 sec. Set buffer time = exptime - 110 sec 15 G130M/132 (1) WD0308-565 7/FUVA/LP 5 (COS.sp.145 7657) Comments: ETC buffer time is 324 sec.	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=16 4; FP-POS=3; LIFETIME-POS=L P5; SEGMENT=A	274 Secs (274 Secs) [==>]	[3]





Proposal 16832 - GD71-C1 (02) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, GD71-C1 (02) Mon Oct 04 11:01:20 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

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

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
ts	(2)	GD71	RA: 05 52 27.6200 (88.1150833d)	Proper Motion RA: 76.841 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
rget			Dec: +15 53 13.23 (15.88701d)	Proper Motion Dec: -172.944 mas/yr		
<u>a</u>			Equinox: J2000	Epoch of Position: 2000		
1 8		s from previous co-ordinate. STAR n=[DA]	notions updated with values from SIMBAD, which s are in decimal places in seconds of time and arcs			

Proposal 16832 - GD71-C1 (02) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

#	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]
			105.5 sec, using 90 sec leads to S/N of 55 te the same exposure time since difference		it request				
2	G130M/109		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=68			793 Secs (793 Secs)	
	6/FUVB/LP 2	,		1096 A	3;			[==>]	
	(COS.sp.154	1			FP-POS=3;				
	0055)				SEGMENT=B;				[1]
					LIFETIME-POS=L P2				
C	omments: Cycle	29 comment: expos	sure time updated following blue modes T	TDSTAB and FLUX	TAB update.				
T	he FUVB count i	TC warnings come j cate is 566 cts/sec, s exptime - 110 sec	from FUVA). so the buffer time is 2.35E6/566 = 4152 s	ec.					
3		DARK	S/C, DATA, NONE			QASISTATES COS		1 Secs (1 Secs)	
						FUV HVLOW HVL OW	•	[==>]	[1]
C	omments: Work-	around to efficienti	ly schedule the SEG-B to SEG-A reconfig	uration. Eliminate.	s SPSS induced gaps.				•
4	G130M/109	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			160 Secs (160 Secs)	
	6/FUVA W AVECAL/L			1096 A	SEGMENT=A;			[==>]	
	P2				FLASH=NO;				[1]
					LIFETIME-POS=L P2				
C m 5	omments: Cycle ber 2017 and A _I G160M/153	pril 2020.	me has been updated to 160 seconds. Th COS/FUV, TIME-TAG, PSA	is was determined o	nfter characterizing the d BUFFER-TIME=10	lecrease by about 12 pe	ercent in the summ	ed count-rate with time over the period bet 106 Secs (106 Secs)	ween Dece
	3/FUVA/LP			1533 A	6;			[==>]	
	(COS.sp.145	;			FP-POS=3;				
	7660)				SEGMENT=A;				[1]
					LIFETIME-POS=L P4				
T	omments: FUVA he FUVA count i et buffer-time = c	ate is 9240 cts/sec,	nings come from FUVB). so the buffer time is 2.35E6/9240 = 254	sec.					
6	G160M/157		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=13			135 Secs (135 Secs)	
	7/FUVA/LP 4			1577 A	5; ED DOS-2.			[==>]	
	(COS.sp.145 7661)	į			FP-POS=3; SEGMENT=A;				[2]
	7001)				LIFETIME-POS=L				[2]
					P4				
C	omments: See Vi	sit 02 comments.							

Proposal 16832 - GD71-C1 (02) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends G160M/161 (2) GD71 1/FUVA/LP COS/FUV, TIME-TAG, PSA G160M BUFFER-TIME=15 159 Secs (159 Secs) 9; 1611 A [==>] FP-POS=3; (COS.sp.154 0058) SEGMENT=A; [2] LIFETIME-POS=L Comments: FUVA only (all ETC warnings come from FUVB). The FUVA count rate is 5172 cts/sec, so the buffer time is 2.35E6/5172 = 454 sec. Set buffer-time = exptime

7;

G160M

1623 A

BUFFER-TIME=17

FP-POS=3;

SEGMENT=A;

LIFETIME-POS=L

177 Secs (177 Secs)

[2]

[==>]

Comments: FUVA only (all ETC warnings come from FUVB). The FUVA count rate is 5095 cts/sec, so the buffer time is 2.35E6/5095 = 461 sec.

COS/FUV, TIME-TAG, PSA

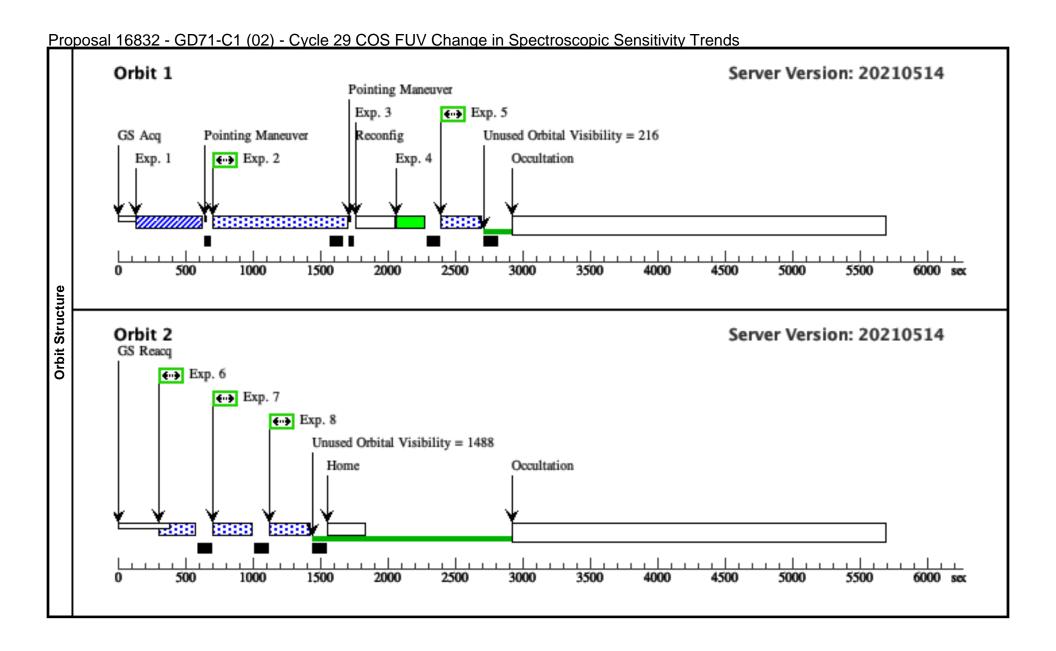
Set buffer-time = exptime

G160M/162 (2) GD71

3/FUVA/LP

(COS.sp.145

7663)



Proposal 16832 - WD0308-C2 (03) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

	000	oai ioooz iiboc	00 02 (00) 0 000 20 000 1	o v onango in opoda dodopio t	Joniolaticy Trollag	
	Pro	posal 16832, WD0308-C2 (0	03)			Mon Oct 04 11:01:20 GMT 2021
<u>.</u> ±	Diag	gnostic Status: No Diagnost	tics			
9.5	Scie	entific Instruments: S/C, COS	S/FUV, COS/NUV			
	Spec	cial Requirements: SCHED 1	.00%			
	Con	ıments: All G160M observati	ions are with $SEGMENT = B$ (i.e. segment A is turn	rned off).		
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
1 4	(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
}	5		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		

Epoch of Position: 2000

Equinox: J2000 Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog. Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog. Category=STAR
Description=[DB]
Extended=NO

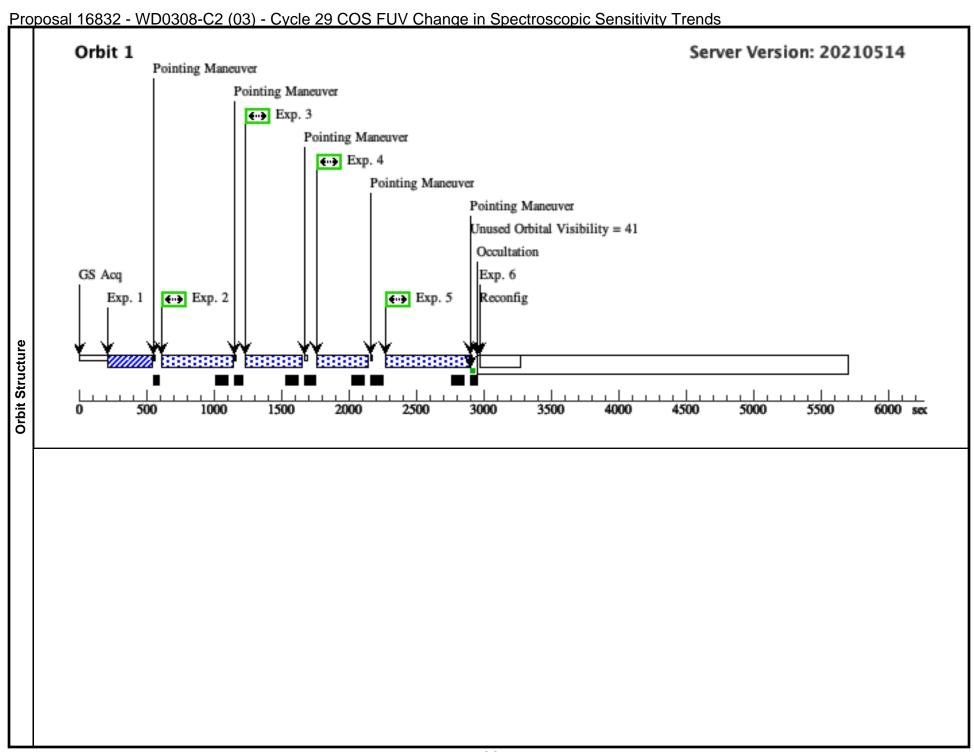
Proposal 16832 - WD0308-C2 (03) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

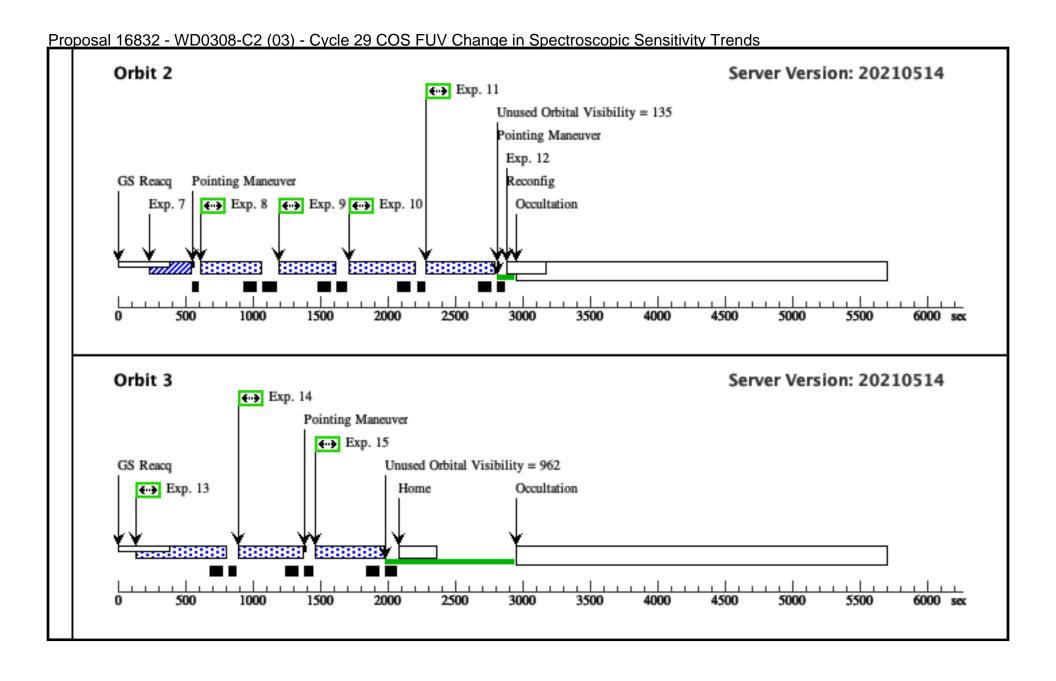
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbi
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)	
	(839564)							[==>]	[1]
Com.	ments: cycle 2 e 28 comment:	?4 comment: exposure : we continue to use th	times not reduced following updated the same exposure time since difference	ETC calculations, a s do not affect orb	differences not enough to it request.	affect orbit requeste	d.		
2	G130M/105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=20			318 Secs (318 Secs)	
	5/LP2 (COS.sp.154			1055 A	8;			[==>]	
	0024)				FP-POS=3; SEGMENT=BOTH:				[11]
					LIFETIME-POS=L	,			[1]
					P2				
Com	ments: Cycle 2	29 comment: exposure	e time updated following blue modes T	DS and FLUXTAB	update.				
	buffer time is	1377 sec xptime - 110 sec							
3		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=15			267 Secs (267 Secs)	
	2/LP4 (COS.sp.145	, ,		1222 A	7;			[==>]	
	7646)				FP-POS=3;				
					LIFETIME-POS=L P4;				[1]
					SEGMENT=BOTH				
		uffer time is 392 sec. xptime - 110 sec							
		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=12			236 Secs (236 Secs)	
	1/LP5	` '		1291 A	6;			[==>]	
	(COS.sp.145 7647)				FP-POS=3;			,	
					LIFETIME-POS=L P5;				[1]
					SEGMENT=BOTH				
		uffer time is 323 sec.							•
	<i>JJ</i>	xptime - 110 sec (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=29			401 Secs (401 Secs)	
	/LP3 (COS.sp.154		,	1280 A	1;			[==>]	
	0033)				FP-POS=3;				
					LIFETIME-POS=L P3;				[1]
					SEGMENT=BOTH				
		uffer time is 503 sec. xptime - 110 sec							
6	ијјет ите — е.	DARK	S/C, DATA, NONE			QASISTATES CO	S	1 Secs (1 Secs)	
						FUV HVLOW HV OW	L	[==>]	[1]
	ments:_Work-a	around to efficiently s	chedule the reconfiguration to SEG-A.	Eliminates SPSS	induced gaps.				
Com	A CO /D 4	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)	
<i>Com.</i> 7	ACQ/IM (839564)								

Proposal 16832 - WD0308-C2 (03) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends FP-POS=3; G160M/153 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M 223 Secs (223 Secs) 3/B/LP4 1533 A BUFFER-TIME=11 *[==>1* (COS.sp.145 7649) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec. G160M/157 (1) WD0308-565 FP-POS=3; COS/FUV, TIME-TAG, PSA G160M 291 Secs (291 Secs) 7/B/LP4 1577 A [==>] BUFFER-TIME=18 (COS.sp.154 0036) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 secG160M/161 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 360 Secs (360 Secs) 1/B/LP4 1611 A BUFFER-TIME=25 f = = > 1(COS.sp.154 0046) LIFETIME-POS=L [2] SEGMENT=B Comments: ETC buffer time is 755 sec. Set buffer time = exptime - 110 secG160M/162 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 388 Secs (388 Secs) 3/B/LP4 1623 A BUFFER-TIME=27 I = = > 1(COS.sp.154 0050) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 814 sec. Set buffer time = exptime - 110 sec12 DARK S/C, DATA, NONE **OASISTATES COS** 1 Secs (1 Secs) FUV HVLOW HVL *[==>1* [2] OW Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps. G140L/800/ (1) WD0308-565 COS/FUV, TIME-TAG, PSA G140L BUFFER-TIME=25 367 Secs (367 Secs) FUVA/LP3 7; 800 A [==>] (COS.sp.145 FP-POS=3; 7778) SEGMENT=A; [3] LIFETIME-POS=L Comments: ETC buffer time is 350 sec. Set buffer time = exptime - 110 sec

Pro	posal 16832	- WD0308-C2 ((03) - Cycle 29	OS FUV (Change in Sp	pectroscopic Sensitivity	Trends

Comments: ETC buffer time is 358 sec. Set buffer time = exptime - 110 sec 15 G130M/132 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G130M BUFFER-TIME=16 7/FUVA/LP 1327 A 4;	
5 (COS.sp.145 7657) FP-POS=3; LIFETIME-POS=L P5; SEGMENT=A	274 Secs (274 Secs) [==>] [3.





Proposal 16832 - GD71-C2 (04) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, GD71-C2 (04) Mon Oct 04 11:01:20 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

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

	The Grown business are with $DDOMDET = I$ (i.e. $Segment D$ is turned $O(I)$).								
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
ets	(2)	GD71	RA: 05 52 27.6200 (88.1150833d)	Proper Motion RA: 76.841 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS			
۱ğ			Dec: +15 53 13.23 (15.88701d)	Proper Motion Dec: -172.944 mas/yr					
<u>a</u>			Equinox: J2000	Epoch of Position: 2000					
Fixed		s from previous co-ordinate STAR n=[DA]	notions updated with values from SIMBAD, which is are in decimal places in seconds of time and arcs						

Proposal 16832 - GD71-C2 (04) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

# La (E	abel TC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
(C	OS.ta.839	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs) [==>]	
	⁷ 4)							[>]	[1]
Commer Cycle 28	nts: Exptim 8 comment:	e for S/N of 60 is we continue to u	105.5 sec, using 90 sec leads to S/N of 55 use the same exposure time since difference	5. es do not affect orbi	it reauest.				
2 G:	130M/109		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=68			793 Secs (793 Secs)	
6/I 2	FUVB/LP			1096 A	3;			[==>]	
(C	OS.sp.154				FP-POS=3;				
00)55)				SEGMENT=B;				[1]
					LIFETIME-POS=L P2				
Comme	nts: Cycle 2	29 comment: expo	osure time updated following blue modes	TDSTAB and FLUX	TAB update.				
The FU	VB count re	C warnings come ate is 566 cts/sec, xptime - 110 sec	e from FUVA). so the buffer time is 2.35E6/566 = 4152	sec.					
3		DARK	S/C, DATA, NONE			QASISTATES CO		1 Secs (1 Secs)	
						FUV HVLOW HV OW	L	[==>]	[1]
Comme	nts: Work-a	round to efficien	tly schedule the SEG-B to SEG-A reconfig	guration. Eliminate:	s SPSS induced gaps.				1
	130M/109		COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			160 Secs (160 Secs)	
	FUVA W VECAL/L			1096 A	SEGMENT=A;			[==>]	
P2					FLASH=NO;				[1]
					LIFETIME-POS=L P2				1-7
<i>mber 20</i> 5 Gi	017 and Apr 160M/153	il 2020.	time has been updated to 160 seconds. The COS/FUV, TIME-TAG, PSA	nis was determined a	fter characterizing the d	lecrease by about 12	percent in the sumn	ned count-rate with time over the period bet 106 Secs (106 Secs)	ween De
3/1	FUVA/LP			1533 A	6;			[==>]	
	OS.sp.145				FP-POS=3;				
76	560)				SEGMENT=A;				[1]
					LIFETIME-POS=L P4				
The FU	nts: FUVA VA count re er-time = ex	ite is 9240 cts/sec	rnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	t sec.					
	160M/157	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=13			135 Secs (135 Secs)	
4	FUVA/LP			1577 A	5;			[==>]	
(C	OS.sp.145				FP-POS=3; SEGMENT=A;				12
70	001)				LIFETIME-POS=L				[2]
					P4				
Comme	nts: See Vis	it 02 comments.							

Proposal 16832 - GD71-C2 (04) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends G160M/161 (2) GD71 1/FUVA/LP COS/FUV, TIME-TAG, PSA BUFFER-TIME=15 G160M 159 Secs (159 Secs) 9; 1611 A [==>] FP-POS=3; (COS.sp.154 0058) SEGMENT=A; [2] LIFETIME-POS=L

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

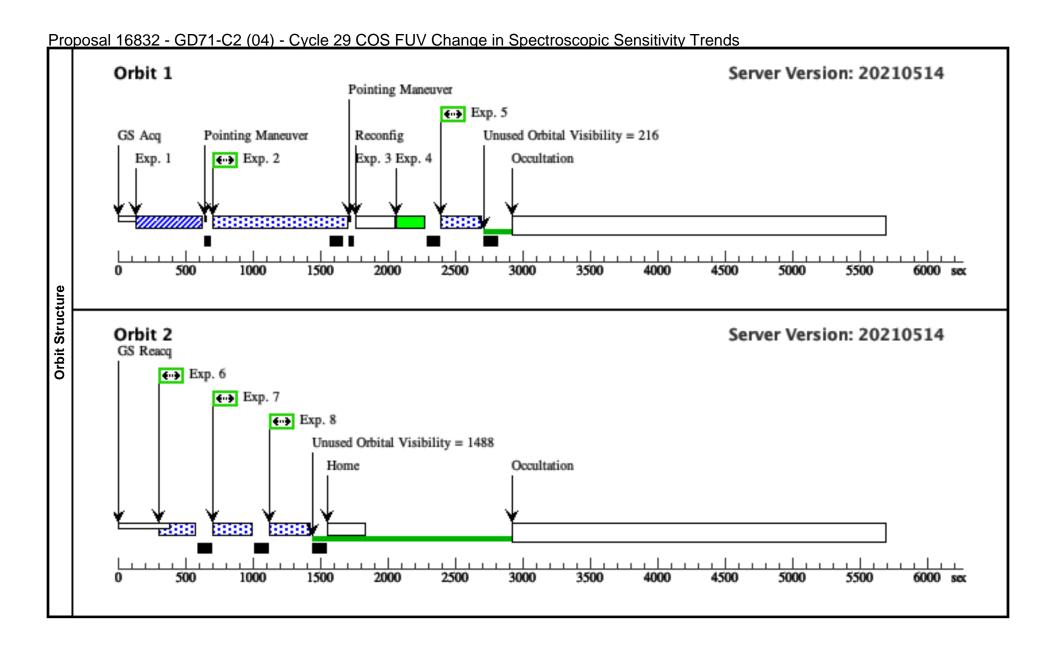
The FUVA count rate is 5172 cts/sec, so the buffer time is 2.35E6/5172 = 454 sec.

	t buffer-time = exptime	e, se me engler mile is 21. 22.5, 21.2	. 500.			
8	G160M/162 (2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=17	177 Secs (177 Secs)	
	3/FUVA/LP		1623 A	7;	[==>]	
	(COS.sp.145			FP-POS=3;		ł
	(COS.sp.145 7663)			SEGMENT=A;		[2]
				LIFETIME-POS=L		l

P4

Comments: FUVA only (all ETC warnings come from FUVB). The FUVA count rate is 5095 cts/sec, so the buffer time is 2.35E6/5095 = 461 sec.

Set buffer-time = exptime



Proposal 16832 - WD0308-C3 (05) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, WD0308-C3 (05) Mon Oct 04 11:01:20 GMT 2021 Diagnostic Status: No Diagnostics Scientific Instruments: S/C, COS/FUV, COS/NUV Special Requirements: SCHED 100% Comments: All G160M observations are with SEGMENT = B (i.e. segment A is turned off). **Target Coordinates Targ. Coord. Corrections** Fluxes Miscellaneous Name **Fixed Targets** (1) WD0308-565 RA: 03 09 47.9200 (47.4496667d) Proper Motion RA: 149.241 mas/yr V=14.07+/-0.02Reference Frame: ICRS Dec: -56 23 49.41 (-56.39706d) Proper Motion Dec: 66.919 mas/yr Equinox: J2000 Epoch of Position: 2000 Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog. Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog. Category=STAR
Description=[DB]
Extended=NO

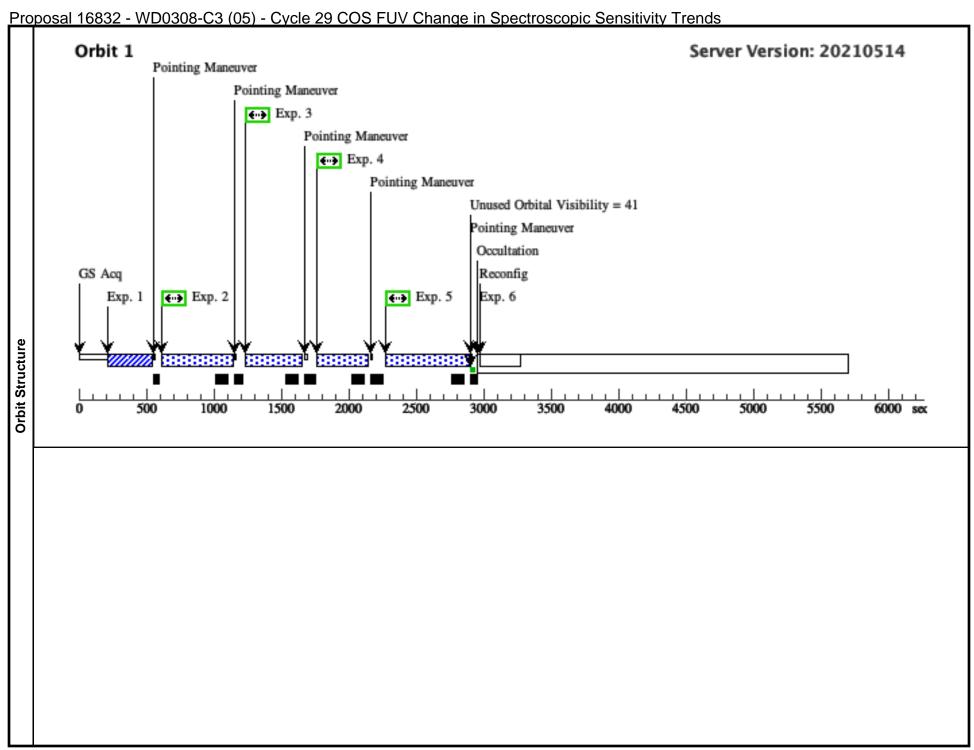
Proposal 16832 - WD0308-C3 (05) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

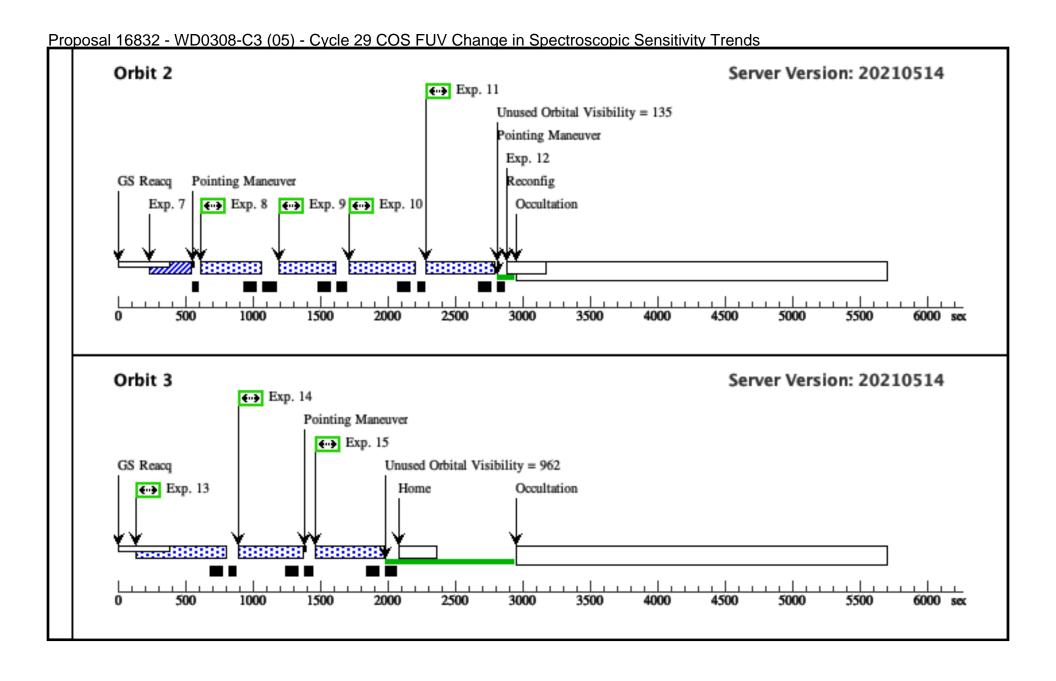
1	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orb
	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)	
	(839564)							[==>]	[1]
			times not reduced following updated I he same exposure time since difference			affect orbit requeste	d.		
		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=20			318 Secs (318 Secs)	
	5/LP2 (COS.sp.154			1055 A	8;			[==>]	
	0024)				FP-POS=3;				.,
					SEGMENT=BOTH LIFETIME-POS=L	;			[1
					P2				
Com	ments: Cycle 2	29 comment: exposure	e time updated following blue modes T	DS and FLUXTAB	update.				
	buffer time is	1377 sec xptime - 110 sec							
	***	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=15			267 Secs (267 Secs)	
	2/LP4 (COS.sp.145	, ,		1222 A	7;			[==>]	
	7646)				FP-POS=3;				
					LIFETIME-POS=L P4;				
					SEGMENT=BOTH				
Com	ments: ETC bi	uffer time is 392 sec.							1
		xptime - 110 sec	COCCEIN THE TAC DOL	G12014	DIFERENTIAL 12			2265 (2265	
	1/LP5	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=12 6;			236 Secs (236 Secs) $I = > I$	
	(COS.sp.145 7647)			1291 A	FP-POS=3;			[>]	
	7047)				LIFETIME-POS=L				[1
					P5;				
Com	ments: FTC h	uffer time is 323 sec.			SEGMENT=BOTH				
		xptime - 110 sec							T
	G140L/1280 /LP3	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=29			401 Secs (401 Secs)	
	(COS.sp.154			1280 A	1; FP-POS=3;			[==>]	
	0033)				LIFETIME-POS=L				[1
					P3;				
					SEGMENT=BOTH				
Comi Set b	ments: ETC bi ouffer time = e.	uffer time is 503 sec. xptime - 110 sec							
6		DARK	S/C, DATA, NONE			QASISTATES CO		1 Secs (1 Secs)	
						FUV HVLOW HV OW	L	[==>]	[1
Com	ments: Work-a	around to efficiently s	chedule the reconfiguration to SEG-A.	Eliminates SPSS	induced gaps.				
7	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)	
	(839564)							[==>]	[2

Proposal 16832 - WD0308-C3 (05) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends FP-POS=3; G160M/153 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M 223 Secs (223 Secs) 3/B/LP4 1533 A BUFFER-TIME=11 *[==>1* (COS.sp.145 7649) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec. G160M/157 (1) WD0308-565 FP-POS=3; COS/FUV, TIME-TAG, PSA G160M 291 Secs (291 Secs) 7/B/LP4 1577 A [==>] BUFFER-TIME=18 (COS.sp.154 0036) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 secG160M/161 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 360 Secs (360 Secs) 1/B/LP4 1611 A BUFFER-TIME=25 f = = > 1(COS.sp.154 0046) LIFETIME-POS=L [2] SEGMENT=B Comments: ETC buffer time is 755 sec. Set buffer time = exptime - 110 secG160M/162 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 388 Secs (388 Secs) 3/B/LP4 1623 A BUFFER-TIME=27 I = = > 1(COS.sp.154 0050) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 814 sec. Set buffer time = exptime - 110 sec12 DARK S/C, DATA, NONE **OASISTATES COS** 1 Secs (1 Secs) FUV HVLOW HVL I = = > 1[2] OW Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps. G140L/800/ (1) WD0308-565 COS/FUV, TIME-TAG, PSA G140L BUFFER-TIME=25 367 Secs (367 Secs) FUVA/LP3 7; 800 A [==>] (COS.sp.145 FP-POS=3; 7778) SEGMENT=A; [3] LIFETIME-POS=L Comments: ETC buffer time is 350 sec. Set buffer time = exptime - 110 sec

<u>Pro</u>	po:	<u>sal 16832 - WD0308-</u>	<u>C3 (05) - Cycle 29 CO</u>	<u>S FUV C</u>	Change in Spectroscopic Sensitivity Trends	
	1.4	C1401 /1105 (1) WD0200 565	COC/EIN TIME TAC DCA	C140I	DIJEEED TIME 22	222 8 (2

4 G140L/1105 (1) WD0308-565 /FUVA/LP3 (COS.sp.145 7846)	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=22 2; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P3	332 Secs (332 Secs) [==>]	[3]
Comments: ETC buffer time is 358 sec. Set buffer time = exptime - 110 sec 5 G130M/132 (1) WD0308-565 7/FUVA/LP 5 (COS.sp.145 7657) Comments: ETC buffer time is 324 sec.	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=16 4; FP-POS=3; LIFETIME-POS=L P5; SEGMENT=A	274 Secs (274 Secs) [==>]	[3]





Proposal 16832 - GD71-C3 (06) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, GD71-C3 (06) Mon Oct 04 11:01:20 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

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

	The Grown business are with $DDOMDET = I$ (i.e. $Segment D$ is turned $O(I)$).								
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
ets	(2)	GD71	RA: 05 52 27.6200 (88.1150833d)	Proper Motion RA: 76.841 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS			
۱ğ			Dec: +15 53 13.23 (15.88701d)	Proper Motion Dec: -172.944 mas/yr					
<u>a</u>			Equinox: J2000	Epoch of Position: 2000					
Fixed		s from previous co-ordinate STAR n=[DA]	notions updated with values from SIMBAD, which is are in decimal places in seconds of time and arcs						

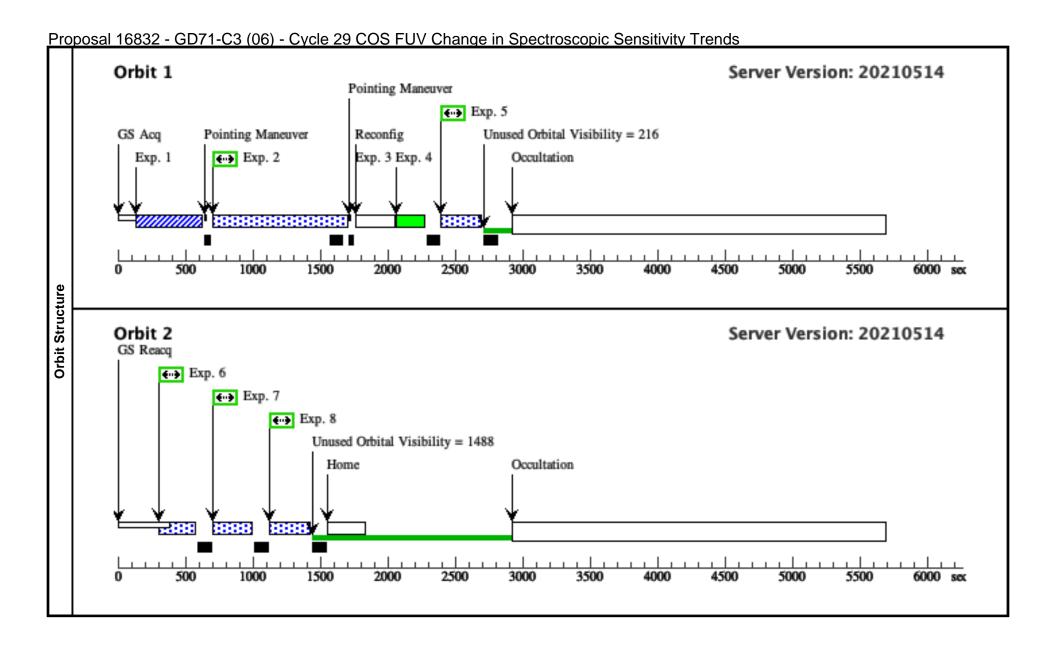
Proposal 16832 - GD71-C3 (06) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

	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 Cvc	nments: Exptim	ne for S/N of 60 is	s 105.5 sec, using 90 sec leads to S/N of 55 use the same exposure time since differenc	5. ces do not affect orb	it reauest				
2	G130M/109		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=68			793 Secs (793 Secs)	
	6/FUVB/LP	. ,	,	1096 A	3;			[==>]	
	(COS.sp.154				FP-POS=3;				
	0055)				SEGMENT=B;				[1]
					LIFETIME-POS=L P2				
Con	nments: Cycle 2	29 comment: exp	osure time updated following blue modes	TDSTAB and FLUX	TAB update.				
The	FUVB count re	C warnings come ate is 566 cts/sec exptime - 110 sec	e from FUVA). , so the buffer time is 2.35E6/566 = 4152 .	sec.					
3	<i></i>	DARK	S/C, DATA, NONE			QASISTATES COS		1 Secs (1 Secs)	
						FUV HVLOW HVI OW	_	[==>]	[1]
Con	nments: Work-a	around to efficien	ntly schedule the SEG-B to SEG-A reconfig	guration. Eliminate	s SPSS induced gaps.				
4	G130M/109	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			160 Secs (160 Secs)	
	6/FUVA W AVECAL/L			1096 A	SEGMENT=A;			[==>]	
	P2				FLASH=NO;				[1]
					LIFETIME-POS=L P2				
	nments: Cycle 2 or 2017 and Ap		time has been updated to 160 seconds. Th	nis was determined o	after characterizing the d	lecrease by about 12 p	percent in the sum	ned count-rate with time over the period be	tween Dec
	G1 603 4/1 50		COCKETTY TENET TACK DOA	CLONE	DIJECTO TO CE 10			1069 (1069	T Dec
5	G160M/153 3/FUVA/LP		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=10 6;			106 Secs (106 Secs)	- Dec
	3/FUVA/LP 4	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M 1533 A				106 Secs (106 Secs) [==>]	ween Bee
		(2) GD71	COS/FUV, TIME-TAG, PSA		6;			` '	[1]
	3/FUVA/LP 4 (COS.sp.145	(2) GD71	COS/FUV, TIME-TAG, PSA		6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L			` '	
5 Com The	3/FUVA/LP 4 (COS.sp.145 7660)	(2) GD71 only (all ETC waate is 9240 cts/se	COS/FUV, TIME-TAG, PSA arnings come from FUVB). c , so the buffer time is $2.35E6/9240 = 254$	1533 A	6; FP-POS=3; SEGMENT=A;			` '	
5 Com The	3/FUVA/LP 4 (COS.sp.145 7660) mments: FUVA FUVA count r. buffer-time = e G160M/157	(2) GD71 only (all ETC wo ate is 9240 cts/se exptime	arnings come from FUVB).	1533 A	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4			` '	
5 Com The	3/FUVA/LP 4 (COS.sp.145 7660) nments: FUVA FUVA count robuffer-time = e	(2) GD71 only (all ETC wo ate is 9240 cts/se exptime	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec.	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5;			[==>]	
5 Com The	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count ribuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145	(2) GD71 only (all ETC waate is 9240 cts/seexptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3;			[==>] 135 Secs (135 Secs)	[1]
5 Com The	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count rebuffer-time = e G160M/157 7/FUVA/LP 4	(2) GD71 only (all ETC waate is 9240 cts/seexptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3; SEGMENT=A;			[==>] 135 Secs (135 Secs)	
5 Com The	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count ribuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145	(2) GD71 only (all ETC waate is 9240 cts/seexptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3;			[==>] 135 Secs (135 Secs)	[1]
Con The Set i	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count rebuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145 7661)	(2) GD71 only (all ETC waate is 9240 cts/seexptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3; SEGMENT=A; LIFETIME-POS=L			[==>] 135 Secs (135 Secs)	[1]
Con The Set i	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count rebuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145 7661)	(2) GD71 only (all ETC wa ate is 9240 cts/se exptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3; SEGMENT=A; LIFETIME-POS=L			[==>] 135 Secs (135 Secs)	[1]
Con The Set i	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count rebuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145 7661)	(2) GD71 only (all ETC wa ate is 9240 cts/se exptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3; SEGMENT=A; LIFETIME-POS=L			[==>] 135 Secs (135 Secs)	[1]
Con The Set i	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count rebuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145 7661)	(2) GD71 only (all ETC wa ate is 9240 cts/se exptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3; SEGMENT=A; LIFETIME-POS=L			[==>] 135 Secs (135 Secs)	[1]
Con The Set i	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count rebuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145 7661)	(2) GD71 only (all ETC wa ate is 9240 cts/se exptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3; SEGMENT=A; LIFETIME-POS=L			[==>] 135 Secs (135 Secs)	[1]
Con The Set i	3/FUVA/LP 4 (COS.sp.145 7660) numents: FUVA FUVA count rebuffer-time = e G160M/157 7/FUVA/LP 4 (COS.sp.145 7661)	(2) GD71 only (all ETC wa ate is 9240 cts/se exptime (2) GD71	arnings come from FUVB). c, so the buffer time is 2.35E6/9240 = 254	1533 A 1 sec. G160M	6; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P4 BUFFER-TIME=13 5; FP-POS=3; SEGMENT=A; LIFETIME-POS=L			[==>] 135 Secs (135 Secs)	[1]

Proposal 16832 - GD71-C3 (06) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends G160M/161 (2) GD71 1/FUVA/LP COS/FUV, TIME-TAG, PSA G160M BUFFER-TIME=15 159 Secs (159 Secs) 9; 1611 A [==>] FP-POS=3; (COS.sp.154 0058) SEGMENT=A; [2] LIFETIME-POS=L Comments: FUVA only (all ETC warnings come from FUVB). The FUVA count rate is 5172 cts/sec, so the buffer time is 2.35E6/5172 = 454 sec. Set buffer-time = exptime G160M/162 (2) GD71 COS/FUV, TIME-TAG, PSA BUFFER-TIME=17 G160M 177 Secs (177 Secs) 3/FUVA/LP 7; [==>] 1623 A FP-POS=3; (COS.sp.145 SEGMENT=A; 7663) [2] LIFETIME-POS=L

Comments: FUVA only (all ETC warnings come from FUVB). The FUVA count rate is 5095 cts/sec, so the buffer time is 2.35E6/5095 = 461 sec.

Set buffer-time = *exptime*



Proposal 16832 - WD0308-C4 (07) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, WD0308-C4 (07) Mon Oct 04 11:01:20 GMT 2021

Diagnostic Status: No Diagnostics Visit

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

Special Requirements: SCHED 100%

Comments: All G160M observations are with SEGMENT = B (i.e. segment A is turned off) for all other WD0308-565 visits.

However, for the June visit, since GD71 is not available, we use SEGMENT = BOTH to keep track of the segment A response, and the first DARK exposure (exp 006 in the other visits) has been removed.

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
ts	(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS			
۱ğ			Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr					
⊒ ⊒			Equinox: J2000	Epoch of Position: 2000					
	Comments: Coordinates carried over from Cycle 25 proposal, checked against SIMBAD, which uses the GAIA DR2 catalog. Proper motions changed to mas/yr, from SIMBAD, also using the GAIA DR2 catalog.								
	Category= Descriptio Extended=	n=[DB]							

Proposal 16832 - WD0308-C4 (07) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

1 /	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)		
	(839564)							[==>]	[1]	
Comm Cycle	Comments: cycle 24 comment: exposure times not reduced following updated ETC calculations, differences not enough to affect orbit requested. Cycle 28 comment: we continue to use the same exposure time since differences do not affect orbit request.									
2 (G130M/105	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=20			318 Secs (318 Secs)		
	5/LP2 (COS.sp.154			1055 A	8;			[==>]		
Ò	0024)				FP-POS=3;	_			[1]	
					SEGMENT=BOTH LIFETIME-POS=L	,			[1]	
					P2					
Comm	ients: Cycle 2	29 comment: exposur	e time updated following blue modes T	DS and FLUXTAB	update.					
	ouffer time is	1377 sec xptime - 110 sec								
3 (G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=15			267 Secs (267 Secs)		
	2/LP4 (COS.sp.145			1222 A	7;			[==>]		
?	7646)				FP-POS=3; LIFETIME-POS=L				[1]	
					P4;				[1]	
					SEGMENT=BOTH					
Comments: ETC buffer time is 392 sec. Set buffer time = exptime - 110 sec 4 G130M/129 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G130M BUFFER-TIME=12 1/LP5 (COS.sp.145 FP-POS=3; LIFETIME-POS=L [1]										
		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=12			236 Secs (236 Secs)		
	1/LP5 (COS.sp.145			1291 A	6; ED DOG 2:			[==>]		
	7647)			FP-POS=3; LIFETIME-POS=L				[1]		
					P5;				[1]	
					SEGMENT=BOTH					
		uffer time is 323 sec. xptime - 110 sec								
		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=29			401 Secs (401 Secs)		
	LP3 (COS.sp.154			1280 A	1; FP-POS=3;			[==>]		
(0033)				LIFETIME-POS=L				[1]	
					P3;				[1]	
					SEGMENT=BOTH					
		uffer time is 503 sec.								
	ients: ETC bi ffer time = e:	xpiime - 110 sec								
Set bu	$ffer\ time = ex$	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)		

Proposal 16832 - WD0308-C4 (07) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends G160M/153 (1) WD0308-565 FP-POS=3: COS/FUV, TIME-TAG, PSA G160M 223 Secs (223 Secs) 3/BOTH/LP 1533 A BUFFER-TIME=11 *[==>1* (COS.sp.145 LIFETIME-POS=L 7649) [2] P4; SEGMENT=BOTH Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec. G160M/157 (1) WD0308-565 FP-POS=3; COS/FUV, TIME-TAG, PSA G160M 291 Secs (291 Secs) 7/BOTH/LP 1577 A [==>] BUFFER-TIME=18 (COS.sp.154 0036) LIFETIME-POS=L [2] P4; SEGMENT=BOTH Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 secG160M/161 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 360 Secs (360 Secs) 1/BOTH/LP 1611 A BUFFER-TIME=25 f = = > 1(COS.sp.154 LIFETIME-POS=L 0046) [2] SEGMENT=BOTH Comments: ETC buffer time is 755 sec. Set buffer time = exptime - 110 secG160M/162 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 388 Secs (388 Secs) 3/BOTH/LP 1623 A BUFFER-TIME=27 I = = > 1(COS.sp.154 0050) LIFETIME-POS=L [2] P4; SEGMENT=BOTH Comments: ETC buffer time is 814 sec. Set buffer time = exptime - 110 sec11 DARK S/C, DATA, NONE **OASISTATES COS** 1 Secs (1 Secs) FUV HVLOW HVL I = = > 1[2] OW Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps. G140L/800/ (1) WD0308-565 COS/FUV, TIME-TAG, PSA G140L BUFFER-TIME=25 367 Secs (367 Secs) FUVA/LP3 7; 800 A [==>] (COS.sp.145 FP-POS=3; 7778) SEGMENT=A; [3] LIFETIME-POS=L Comments: ETC buffer time is 350 sec. Set buffer time = exptime - 110 sec

Proposal 16832 - WD0308-C4 (07) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends 13 G140L/1105 (1) WD0308-565 /FUVA/LP3 (COS.sp.145 G140L BUFFER-TIME=22 COS/FUV, TIME-TAG, PSA 332 Secs (332 Secs) 2; 1105 A [==>] FP-POS=3:

	7846)			SEGMENT=A; LIFETIME-POS=L P3	
	Comments: ETC buffer time is 358 sec. Set buffer time = exptime - 110 sec			13	
1	4 G130M/132 (1) WD0308-565 7/FUVA/LP 5	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=16 4; FP-POS=3:	274 Secs (274 Secs) [==>]

FP-POS=3;

[3]

[3]

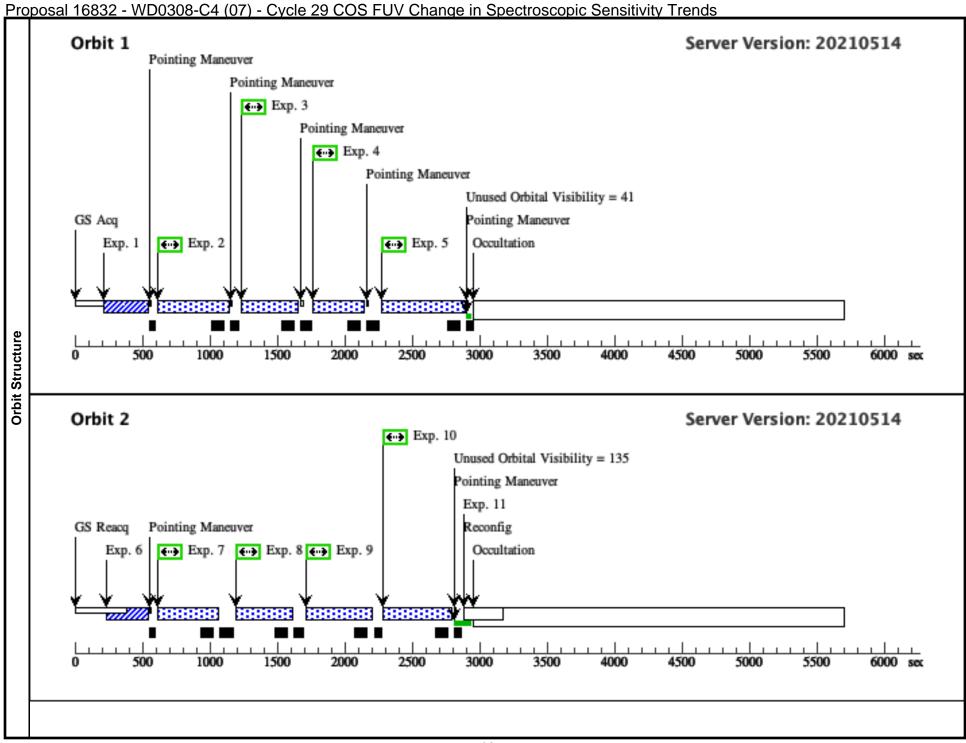
LIFETIME-POS=L P5;

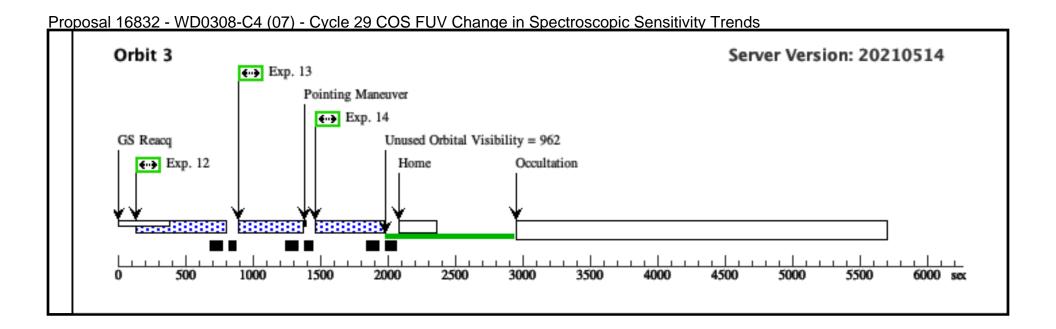
SEGMENT=A

Comments: ETC buffer time is 324 sec. set buffer time = exptime - 110 sec

(COS.sp.145

7657)





Proposal 16832 - WD0308-C5 (08) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

	Proposal 16832, WD0308-C5 (0	08)			Mon Oct 04 11:01:20 GMT 2021				
±	Diagnostic Status: No Diagnost	ics							
Vis	Scientific Instruments: S/C, COS/FUV, COS/NUV								
[Special Requirements: SCHED 100%								
	Comments: All G160M observati	ions are with $SEGMENT = B$ (i.e. segment A is turn	rned off).						
ı	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
gets	(1) WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS				
Ιğ		Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr						
a a		Equinox: J2000	Epoch of Position: 2000						
Fixed	Comments: Coordinates carried Proper motions changed to mas/y Category=STAR Description=[DB] Extended=NO	over from Cycle 25 proposal, checked against SIN yr, from SIMBAD, also using the GAIA DR2 catal	MBAD, which uses the GAIA DR2 catalog. log.						

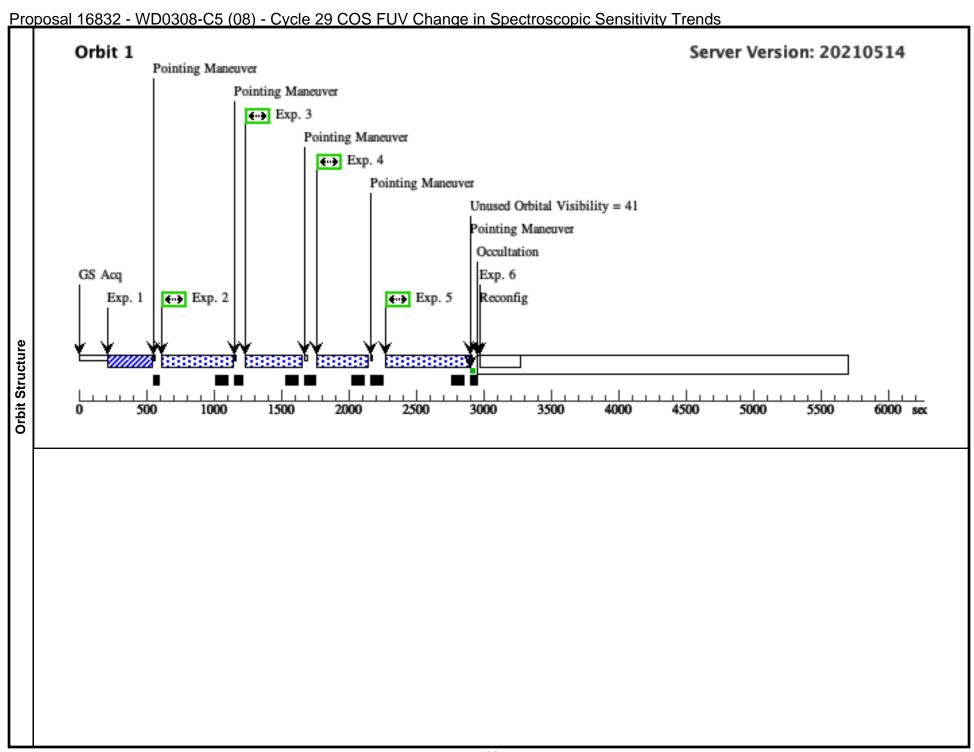
Proposal 16832 - WD0308-C5 (08) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

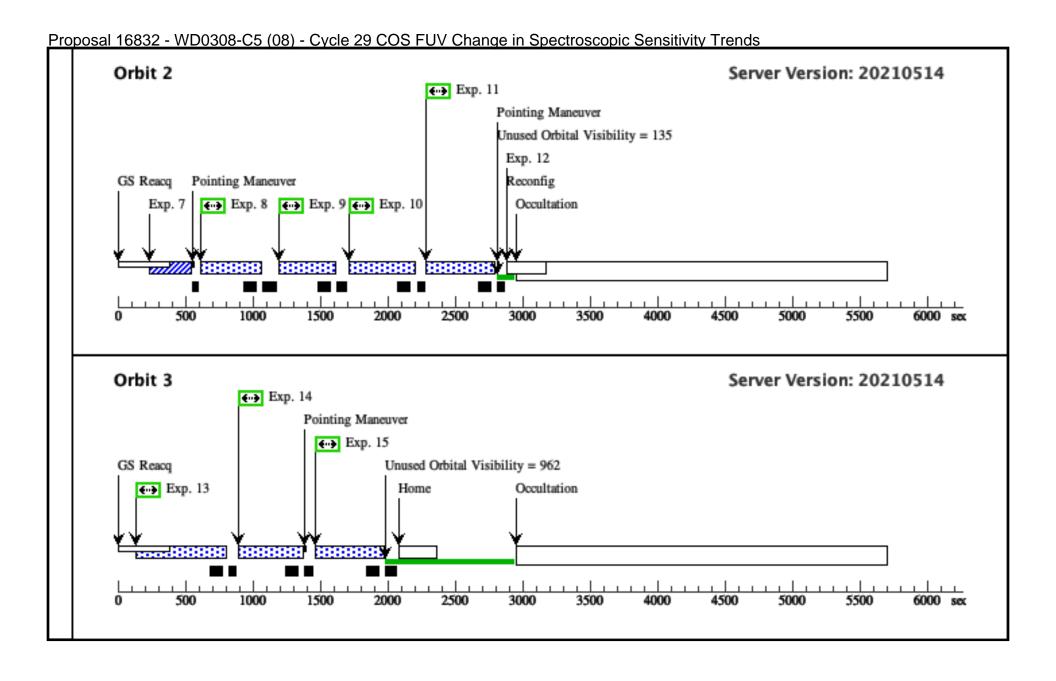
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbi
1	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				45 Secs (45 Secs)	
	(839564)							[==>]	[1]
			e times not reduced following updated t the same exposure time since difference			affect orbit requeste	ed.		
2		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=20			318 Secs (318 Secs)	
	5/LP2 (COS.sp.154			1055 A	8;			[==>]	
	0024)				FP-POS=3;				
					SEGMENT=BOTH LIFETIME-POS=L	;			[1]
					P2				
Con	nments: Cycle	29 comment: exposu	re time updated following blue modes T	DS and FLUXTAB	update.				
	C buffer time is buffer time = e	1377 sec exptime - 110 sec							
3		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=15			267 Secs (267 Secs)	
	2/LP4 (COS.sp.145			1222 A	7;			[==>]	
	7646)				FP-POS=3; LIFETIME-POS=L				[11
					P4;				[1]
					SEGMENT=BOTH				
		uffer time is 392 sec.							
Set I		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	DIJECED TIME_12			236 Secs (236 Secs)	
4	1/LP5	,	COS/FUV, TIME-TAG, PSA	1291 A	BUFFER-TIME=12 6;			[==>]	
	(COS.sp.145 7647)			12)1 A	FP-POS=3;			1>1	
	7017)				LIFETIME-POS=L				[1]
					P5; SEGMENT=BOTH				
Con	nments: FTC h	uffer time is 323 sec.			SEGMENT=BOTH				
		exptime - 110 sec							
5		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=29			401 Secs (401 Secs)	
	/LP3 (COS.sp.154			1280 A	1; FP-POS=3;			[==>]	
	0033)				LIFETIME-POS=L				[1]
					P3;				[1]
					SEGMENT=BOTH				
		uffer time is 503 sec. exptime - 110 sec							
6	sign time = c	DARK	S/C, DATA, NONE			QASISTATES CO		1 Secs (1 Secs)	
						FUV HVLOW HV OW	'L	[==>]	[1]
Con	nments: Work-	around to efficiently	schedule the reconfiguration to SEG-A.	Eliminates SPSS	induced gaps	O 11			1 2-3
7	ACQ/IM	(1) WD0308-565	COS/NUV, ACQ/IMAGE, BOA	MIRRORA	Sopo.			45 Secs (45 Secs)	
	(839564)	(-)						[==>]	[2]
Con	nments: cycle 2	24 comment: exposur	re times not reduced following updated the same exposure time since difference	ETC calculations,	differences not enough to	affect orbit requeste	ed.	<u> </u>	, ,-,
Cyc	ie 28 comment	: we continue to use	ine same exposure time since difference	s ao not affect orb	ıı request.				
l									

Proposal 16832 - WD0308-C5 (08) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends FP-POS=3; G160M/153 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M 223 Secs (223 Secs) 3/B/LP4 1533 A BUFFER-TIME=11 *[==>1* (COS.sp.145 7649) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec. G160M/157 (1) WD0308-565 FP-POS=3; COS/FUV, TIME-TAG, PSA G160M 291 Secs (291 Secs) 7/B/LP4 1577 A [==>] BUFFER-TIME=18 (COS.sp.154 0036) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 secG160M/161 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 360 Secs (360 Secs) 1/B/LP4 1611 A BUFFER-TIME=25 f = = > 1(COS.sp.154 0046) LIFETIME-POS=L [2] SEGMENT=B Comments: ETC buffer time is 755 sec. Set buffer time = exptime - 110 secG160M/162 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 388 Secs (388 Secs) 3/B/LP4 1623 A BUFFER-TIME=27 I = = > 1(COS.sp.154 0050) LIFETIME-POS=L [2] P4; SEGMENT=B Comments: ETC buffer time is 814 sec. Set buffer time = exptime - 110 sec12 DARK S/C, DATA, NONE **OASISTATES COS** 1 Secs (1 Secs) FUV HVLOW HVL *[==>1* [2] OW Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps. G140L/800/ (1) WD0308-565 COS/FUV, TIME-TAG, PSA G140L BUFFER-TIME=25 367 Secs (367 Secs) FUVA/LP3 7; 800 A [==>] (COS.sp.145 FP-POS=3; 7778) SEGMENT=A; [3] LIFETIME-POS=L Comments: ETC buffer time is 350 sec. Set buffer time = exptime - 110 sec

<u>Prop</u>	<u>oosal 16832 - WD0308-0</u>	<u> C5 (08) - Cycle 29 CO</u>	<u>S FUV Ch</u>	<u>ange in Spectroscopic Sensitivity Tre</u>	nds
	14 G140L/1105 (1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=22	332 Secs (332 Secs)

14	G140L/1105 (1) WD0308-565 /FUVA/LP3 (COS.sp.145 7846)	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=22 2; FP-POS=3; SEGMENT=A; LIFETIME-POS=L P3	332 Secs (332 Secs) [==>]	[3]
	mments: ETC buffer time is 358 sec. buffer time = exptime - 110 sec G130M/132 (1) WD0308-565 7/FUVA/LP 5 (COS.sp.145 7657)	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=16 4; FP-POS=3; LIFETIME-POS=L P5;	274 Secs (274 Secs) [==>]	[3]
	nments: ETC buffer time is 324 sec. buffer time = exptime - 110 sec			SEGMENT=A		





Proposal 16832 - GD71-C4 (09) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, GD71-C4 (09) Mon Oct 04 11:01:20 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

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

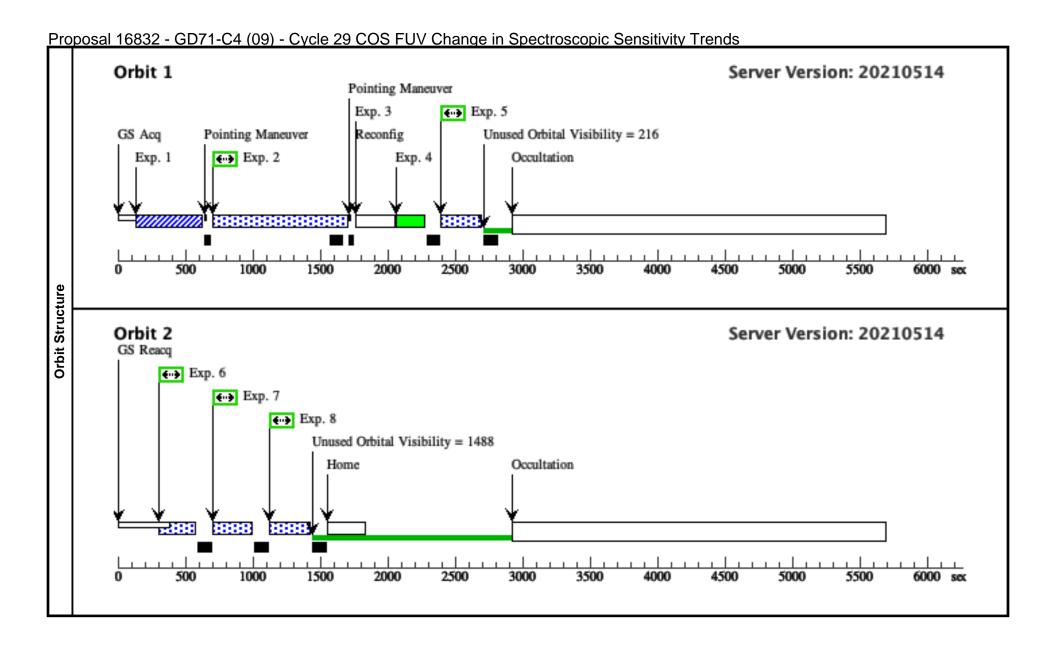
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
ts	(2)	GD71	RA: 05 52 27.6200 (88.1150833d)	Proper Motion RA: 76.841 mas/yr	V=13.06+/-0.01	Reference Frame: ICRS
rget			Dec: +15 53 13.23 (15.88701d)	Proper Motion Dec: -172.944 mas/yr		
⊒			Equinox: J2000	Epoch of Position: 2000		
Fixed		s from previous co-ordinate. STAR 1=[DA]	notions updated with values from SIMBAD, which s are in decimal places in seconds of time and arcs			

Proposal 16832 - GD71-C4 (09) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

	ibel TC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1 AC	CO/IM	(2) GD71	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				90 Secs (90 Secs)	
574	OS.ta.839 (4)							[==>]	[1]
			s 105.5 sec, using 90 sec leads to S/N of 55 use the same exposure time since differenc		it reauest				
		(2) GD71	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=68			793 Secs (793 Secs)	
6/F 2	FUVB/LP			1096 A	3;			[==>]	
(C	OS.sp.154 (55)				FP-POS=3; SEGMENT=B;				[11
00.	(33)				LIFETIME-POS=L				[1]
					P2				
Commen	nts: Cycle 2	29 comment: exp	osure time updated following blue modes	TDSTAB and FLUX	TAB update.				
The FUV	VB count re	C warnings come ate is 566 cts/sec,	e from FUVA). , so the buffer time is 2.35E6/566 = 4152	sec.					
3	er-ume = e	DARK	S/C, DATA, NONE			QASISTATES CO		1 Secs (1 Secs)	
İ						FUV HVLOW HV OW	L	[==>]	[1]
Commen	nts: Work-a	around to efficien	ntly schedule the SEG-B to SEG-A reconfig	guration. Eliminate	s SPSS induced gaps.				
	130M/109	WAVE	COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			160 Secs (160 Secs)	
A١	FUVA W VECAL/L			1096 A	SEGMENT=A;			I = => J	
P2	!				FLASH=NO;				[1]
					LIFETIME-POS=L P2				
Commen mber 20	nts: Cycle 2 17 and Ap	28: the exposure ril 2020.	time has been updated to 160 seconds. Th	nis was determined o	after characterizing the a	lecrease by about 12 j	percent in the sum	ned count-rate with time over the period bet	ween Dec
5 G1	160M/153	(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=10			106 Secs (106 Secs)	
3/F 4	FUVA/LP			1533 A	6; FP-POS=3;			[==>]	
	OS.sp.145				SEGMENT=A;				[1]
70	.00)				LIFETIME-POS=L				[1]
					P4				
The FUV	nts: FUVA VA count re er-time = e	ate is 9240 cts/se	arnings come from FUVB). cc, so the buffer time is 2.35E6/9240 = 254	sec.					
		(2) GD71	COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=13			135 Secs (135 Secs)	
4	FUVA/LP			1577 A	5; FP-POS=3;			[==>]	
	OS.sp.145				SEGMENT=A;				[2]
70	01)				LIFETIME-POS=L				[2]
					P4				
Commen	nts: See Vis	sit 02 comments.							
l									

Proposal 16832 - GD71-C4 (09) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends G160M/161 (2) GD71 1/FUVA/LP COS/FUV, TIME-TAG, PSA G160M BUFFER-TIME=15 159 Secs (159 Secs) 9; 1611 A [==>] FP-POS=3; (COS.sp.154 0058) SEGMENT=A; [2] LIFETIME-POS=L Comments: FUVA only (all ETC warnings come from FUVB). The FUVA count rate is 5172 cts/sec, so the buffer time is 2.35E6/5172 = 454 sec. Set buffer-time = exptime G160M/162 (2) GD71 COS/FUV, TIME-TAG, PSA BUFFER-TIME=17 G160M 177 Secs (177 Secs) 3/FUVA/LP 7; [==>] 1623 A FP-POS=3; (COS.sp.145 SEGMENT=A; 7663) [2] LIFETIME-POS=L Comments: FUVA only (all ETC warnings come from FUVB). The FUVA count rate is 5095 cts/sec, so the buffer time is 2.35E6/5095 = 461 sec.

Set buffer-time = *exptime*



Proposal 16832 - WD0308-C6 (10) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

Proposal 16832, WD0308-C6 (10)

Mon Oct 04 11:01:21 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

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

Contingency visit 10 exposures would occur after the move to LP6 in October 2022. G160M exposures have been changed from LP4 to LP6. The LPs for G130M and G140L cenwaves are unchanged.

Extra overheads are incurred at LP6 due to split-wavecals. To fit the exposures into 3 orbits the FUVA exposures are taken before the FUVB exposures.

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
ts	(1)	WD0308-565	RA: 03 09 47.9200 (47.4496667d)	Proper Motion RA: 149.241 mas/yr	V=14.07+/-0.02	Reference Frame: ICRS
get			Dec: -56 23 49.41 (-56.39706d)	Proper Motion Dec: 66.919 mas/yr		
٦Ē			Equinox: J2000	Epoch of Position: 2000		
Fixed	Comments. Proper mode Category= Description Extended=	tions changed to mas/yr, fro STAR n=[DB]	from Cycle 25 proposal, checked against SIMBAD, om SIMBAD, also using the GAIA DR2 catalog.	which uses the GAIA DR2 catalog.		

Proposal 16832 - WD0308-C6 (10) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends

#	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				45 Secs (45 Secs)	
	(839564)							[==>]	[1]
Con Cyc	nments: cycle 2 ele 28 comment.	24 comment: exposure : we continue to use t	e times not reduced following updated the same exposure time since differenc	ETC calculations, es do not affect orb	differences not enough to it request.	affect orbit requeste	₽d.		
2		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=20			318 Secs (318 Secs)	
	5/LP2 (COS.sp.154			1055 A	8;			I==>J	
	0024)				FP-POS=3; SEGMENT=BOTH:				[1]
					LIFETIME-POS=L	,			[1]
					P2				
Con	nments: Cycle 2	29 comment: exposur	re time updated following blue modes	TDS and FLUXTAB	update.				
	C buffer time is buffer time = e.	1377 sec xptime - 110 sec							
3	G130M/122	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=15			267 Secs (267 Secs)	
	2/LP4 (COS.sp.145			1222 A	7;			[==>]	
	7646)				FP-POS=3; LIFETIME-POS=L				[1]
					P4;				[1]
					SEGMENT=BOTH				
Sat		uffer time is 392 sec. xptime - 110 sec							
4		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=12			236 Secs (236 Secs)	
	1/LP5 (COS.sp.145			1291 A	6; ED DOG 3:			I==>J	
	7647)				FP-POS=3; LIFETIME-POS=L				[1]
					P5;				[1]
					SEGMENT=BOTH				
Con Set	nments: ETC bi buffer time = e.	uffer time is 323 sec. xptime - 110 sec							
5	G140L/1280	(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=29			401 Secs (401 Secs)	
	/LP3 (COS.sp.154			1280 A	1;			I==>J	
	0033)				FP-POS=3; LIFETIME-POS=L				[1]
					P3;				[1]
					SEGMENT=BOTH				
		uffer time is 503 sec. xptime - 110 sec							
6		DARK	S/C, DATA, NONE			QASISTATES CO		1 Secs (1 Secs)	
						FUV HVLOW HV OW	'L	[==>]	[1]
Con	nments: Work-a	around to efficiently s	schedule the reconfiguration to SEG-A	. Eliminates SPSS	induced gaps.				
7		(1) WD0308-565	COS/FUV, TIME-TAG, PSA	G140L	BUFFER-TIME=25			367 Secs (367 Secs)	
	FUVA/LP3 (COS.sp.145			800 A	7; FP-POS=3;			[==>J	
	7778)				SEGMENT=A;				[2]
					LIFETIME-POS=L				[2]
					P3				
		uffer time is 350 sec. xptime - 110 sec							
sei	vujjer ume = e .	лрите - 110 sec			50				

Proposal 16832 - WD0308-C6 (10) - Cycle 29 COS FUV Change in Spectroscopic Sensitivity Trends G140L/1105 (1) WD0308-565 BUFFER-TIME=22 COS/FUV, TIME-TAG, PSA G140L 332 Secs (332 Secs) /FUVA/LP3 1105 A *[==>1* (COS.sp.145 FP-POS=3; 7846) SEGMENT=A: [2] LIFETIME-POS=L Comments: ETC buffer time is 358 sec. Set buffer time = exptime - 110 secG130M/132 (1) WD0308-565 274 Secs (274 Secs) COS/FUV, TIME-TAG, PSA G130M BUFFER-TIME=16 7/FUVA/LP 1327 A [==>] FP-POS=3; (COS.sp.145 7657) LIFETIME-POS=L [2] P5; SEGMENT=A Comments: ETC buffer time is 324 sec. set buffer time = exptime - 110 sec 10 DARK S/C, DATA, NONE **OASISTATES COS** 1 Secs (1 Secs) FUV HVLOW HVL f = = > 1[2] OW Comments: Work-around to efficiently schedule the reconfiguration to SEG-A. Eliminates SPSS induced gaps. G160M/153 (1) WD0308-565 COS/FUV, TIME-TAG, PSA FP-POS=3; 223 Secs (223 Secs) G160M 3/B/LP6 1533 A BUFFER-TIME=11 *[==>1* (COS.sp.145 3; 7649) LIFETIME-POS=L [2] SEGMENT=B Comments: ETC buffer time is 502 sec. Set buffer time = exptime - 110 sec. G160M/157 (1) WD0308-565 COS/FUV, TIME-TAG, PSA FP-POS=3; G160M 291 Secs (291 Secs) 7/B/LP6 1577 A BUFFER-TIME=18 I = = > 1(COS.sp.154 0036) LIFETIME-POS=L [3] P6: SEGMENT=B Comments: ETC buffer time is 644 sec. Set buffer time = exptime - 110 secG160M/161 (1) WD0308-565 COS/FUV, TIME-TAG, PSA G160M FP-POS=3; 360 Secs (360 Secs) 1/B/LP6 1611 A BUFFER-TIME=25 [==>] (COS.sp.154 0046) LIFETIME-POS=L [3] P6: SEGMENT=B Comments: ETC buffer time is 755 sec. Set buffer time = exptime - 110 sec

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| 14 | G160M/162 (1) WD0308-565 | COS/FUV, TIME-TAG, PSA | G160M | FP-POS=3; | 388 Secs (388 Secs) | [==>] |
| (COS.sp.154 | 0050) | LIFETIME-POS=L | P6; | SEGMENT=B | [3] |
| Comments: ETC buffer time is 814 sec. | Set buffer time = exptime - 110 sec

