

15680 - COS FUV Time Dependent Sensitivity - Target Connection Preparing for One-Gyro Operations

Cycle: 26, Proposal Category: CAL/COS (Availability Mode: RESTRICTED)

INVESTIGATORS

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Dr. David J. Sahnow (CoI)	Space Telescope Science Institute	sahnow@stsci.edu

VISITS

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
01	(1) WD1057+719 DARK WAVE	COS/FUV COS/NUV S/C	2	13-Sep-2019 13:00:13.0	yes
52	(1) WD1057+719 DARK WAVE	COS/FUV COS/NUV S/C	2	13-Sep-2019 13:00:14.0	yes
53	(1) WD1057+719 DARK WAVE	COS/FUV COS/NUV S/C	2	13-Sep-2019 13:00:16.0	yes

6 Total Orbits Used

Proposal 15680 (STScI Edit Number: 4, Created: Friday, September 13, 2019 at 12:00:16 PM Eastern Standard Time) - Overview

ABSTRACT

The visibility of one of the targets (GD 71) used for the FUV TDS monitor is severely affected under one-gyro operations. The modes in the current TDS program using this target are G130M/1096/FUVB, G160M/1577/FUVA and G160M/1623A. In one-gyro operations, these modes will be covered using the flux standard, WD1057+719, which was used until 2012 while COS was operating at LP1. Furthermore, the G160M/segment B modes, all of which are currently tracked by WD0308-565 will be moved over to the new target WD1057+719. This program is designed to provide the relative scaling at for all the modes that will be tracked by WD1057+719 during one-gyro operations. G130M/1096/FUVB observations will be obtained at LP2 and the G160M observations at LP4.

OBSERVING DESCRIPTION

The program consists of one visit, with two orbits. The target is the flux standard White Dwarf WD1057+719.

The target will be acquired using NUV ACQ/IM with MIRROR A. Then it will be observed with the G130M/1096/FUVB setting (with segment A turned off). Since there are no lamp lines available in this setting, a WAVECAL observation will be obtained after turning on segment A. The remaining modes, G160M/1533, 1577 and 1623 will be observed after the WAVECAL.

The exposure times specified are those required, and should not be auto-adjusted.

Since these observations will be used in conjunction with the regular FUV TDS targets to provide the scaling, the scheduling windows have been restricted to those for specified for complete sequences in the Cy 26 FUV TDS monitoring program, 15535 (PI Sankrit).

NOTE added June 3, 2019: the failure of visit 06 (target GD71) of Cycle 26 FUV TDS monitoring program, 15535 led to two additional external orbits being approved for the program. These are being utilized in visit 52. The window specified for the visit starts two weeks after the end of the window for visit 09 program 15535, the next observation of GD71.

Proposal 15680 - WD1057+719 (01) - COS FUV Time Dependent Sensitivity - Target Connection Preparing for One-Gyro Operations

Proposal 15680, WD1057+719 (01), completed Fri Sep 13 17:00:16 GMT 2019

Diagnostic Status: No Diagnostics

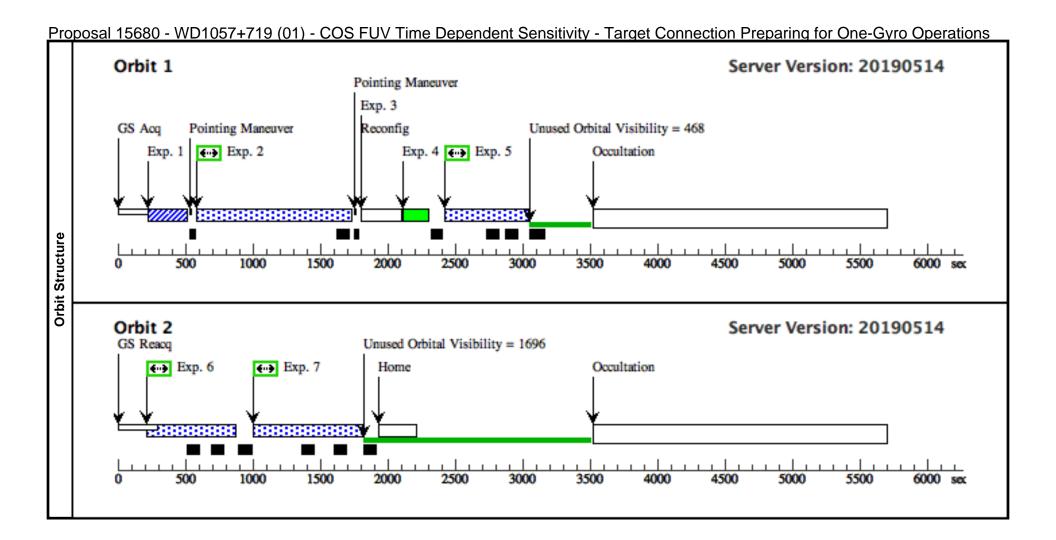
Scientific Instruments: S/C, COS/FUV, COS/NUV

Special Requirements: BETWEEN 18-FEB-2019:00:00:00 AND 27-FEB-2019:00:00:00; BETWEEN 10-APR-2019:00:00:00 AND 23-APR-2019:00:00:00; BETWEEN 04-AUG-2019:00:00:00 AND 27-AUG-2019:00:00:00; BETWEEN 06-OCT-2019:00:00:00 AND 29-OCT-2019:00:00:00

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d)	Proper Motion RA: -0.00973 sec of time/yr	V=14.68+/-0.02	Reference Frame: ICRS
get		Dec: +71 38 2.99 (71.63416d)	Proper Motion Dec: -0.02 arcsec/yr		
a.		Equinox: J2000	Epoch of Position: 2000		
Con	mments: From program 12806	(PI Massa), which has:			
a l	From Wolfe's TIR2009 02				
	tegory=STAR				
	scription=[DA]				
Exte	ended=NO				

Proposal 15680 - WD1057+719 (01) - COS FUV Time Dependent Sensitivity - Target Connection Preparing for One-Gyro Operations

	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.131 1402)	(1) WD1057+719	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				33 Secs (33 Secs) [==>]	[1]
Co	- /	time of 33 seconds yiel	lds S/N of 60.						
2		(1) WD1057+719	COS/FUV, TIME-TAG, PSA	G130M	FP-POS=3;			947 Secs (947 Secs)	
	6/FUVB (COS.sp.13: 1389)	1		1096 A	LIFETIME-POS=L P2;			[==>]	
	1307)				SEGMENT=B; BUFFER-TIME=84 7				[1]
		r time is exposure time vill be turned off.	- 100 sec.						
3		DARK	S/C, DATA, NONE			QASISTATES CO	S	1 Secs (1 Secs)	
						FUV HVLOW HV OW	L	[==>]	[1]
Co		- W - 2	chedule the SEG-B to SEG-A reconfig						1
4	G130M/109 6/WAVECA		COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			140 Secs (140 Secs)	
	L/LP2	1		1096 A	LIFETIME-POS=L P2;			[==>]	
					SEGMENT=BOTH;				[1]
					FLASH=NO				
Co	omments: Expos	sure time same as wave ch FUVA will be turne	ecal for current TDS program 15384.	Although both segr	nents will remain on, onl	y the FUVA segment	has lines that are us	able. This wavecal will be applied to the d	ata from ex
<i>po</i> .	sure 2, jor whic		a ojj.						
	G160M/153	(1) WD1057+719	COS/FUV. TIME-TAG. PSA	G160M	FP-POS=3:			425 Secs. (425 Secs)	
	G160M/153 3 (1303223)	(1) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=3; LIFETIME-POS=L P4;			425 Secs (425 Secs) [==>]	
	3	(1) WD1057+719	COS/FUV, TIME-TAG, PSA		LIFETIME-POS=L				[1]
	3	(1) WD1057+719	COS/FUV, TIME-TAG, PSA		LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13				[1]
	3 (1303223)				LIFETIME-POS=L P4; SEGMENT=BOTH;				[1]
	3 (1303223) omments: Buffer	r time is 2/3 of the ETC	C calculated buffer time of 207 sec.	1533 A	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13			[==>]	[1]
Co	3 (1303223) omments: Buffer				LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13				[1]
Co	3 (1303223) comments: Buffer G160M/157 7	r time is 2/3 of the ETC	C calculated buffer time of 207 sec.	1533 A G160M	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L			[==>] 528 Secs (528 Secs)	
Co	3 (1303223) comments: Buffer G160M/157 7	r time is 2/3 of the ETC	C calculated buffer time of 207 sec.	1533 A G160M	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4;			[==>] 528 Secs (528 Secs)	[2]
<i>Co</i> 6	3 (1303223) comments: Buffer G160M/157 7 (1303224)	r time is 2/3 of the ETC (1) WD1057+719	C calculated buffer time of 207 sec. COS/FUV, TIME-TAG, PSA	1533 A G160M	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18			[==>] 528 Secs (528 Secs)	
<i>Co</i> 6	3 (1303223) **Domments: Buffer G160M/157 7 (1303224) **Domments: Buffer	r time is 2/3 of the ETC (1) WD1057+719	C calculated buffer time of 207 sec.	1533 A G160M	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18			[==>] 528 Secs (528 Secs)	
<i>Co</i> 6	3 (1303223) **Domments: Buffer G160M/157 7 (1303224) **Domments: Buffer	r time is 2/3 of the ETC (1) WD1057+719 r time is 2/3 of the ETC	C calculated buffer time of 207 sec. COS/FUV, TIME-TAG, PSA Coalculated buffer time of 269 sec.	1533 A G160M 1577 A	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18			[==>] 528 Secs (528 Secs) [==>]	
<i>Co</i> 6	3 (1303223) comments: Buffer G160M/157 7 (1303224) comments: Buffer G160M/162 3	r time is 2/3 of the ETC (1) WD1057+719 r time is 2/3 of the ETC	C calculated buffer time of 207 sec. COS/FUV, TIME-TAG, PSA Coalculated buffer time of 269 sec.	G160M 1577 A	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18 0 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH;			[==>] 528 Secs (528 Secs) [==>] 671 Secs (671 Secs)	
<i>Co</i> 6	3 (1303223) comments: Buffer G160M/157 7 (1303224) comments: Buffer G160M/162 3	r time is 2/3 of the ETC (1) WD1057+719 r time is 2/3 of the ETC	C calculated buffer time of 207 sec. COS/FUV, TIME-TAG, PSA Coalculated buffer time of 269 sec.	G160M 1577 A	LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18 0 FP-POS=3; LIFETIME-POS=L P4;			[==>] 528 Secs (528 Secs) [==>] 671 Secs (671 Secs)	[2]



Proposal 15680 - WD1057+719 (52) - COS FUV Time Dependent Sensitivity - Target Connection Preparing for One-Gyro Operations

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	Propos	sal 15680, WD1057+719 ((52), completed			Fri Sep 13 17:00:17 GMT 20
sit	Diagno	stic Status: No Diagnost	ics			
×	Scientif	fic Instruments: S/C, COS	/FUV, COS/NUV			
	Special	Requirements: BETWEE	N 09-SEP-2019:00:00:00 AND 20-SEP-2019:00:0	00:00		
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
ß	(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d)	Proper Motion RA: -0.00973 sec of time/yr	V=14.68+/-0.02	Reference Frame: ICRS
Je I			Dec: +71 38 2.99 (71.63416d)	Proper Motion Dec: -0.02 arcsec/yr		

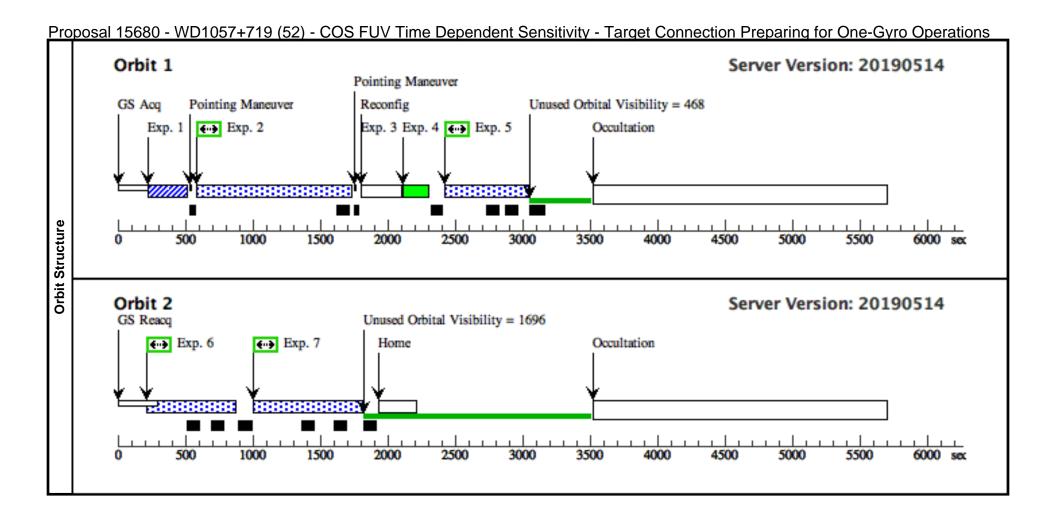
Epoch of Position: 2000

Comments: From program 12806 (PI Massa), which has:

Equinox: J2000

From Wolfe's TIR2009_02 Category=STAR Description=[DA] Extended=NO Proposal 15680 - WD1057+719 (52) - COS FUV Time Dependent Sensitivity - Target Connection Preparing for One-Gyro Operations

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.131	(1) WD1057+719	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				33 Secs (33 Secs) [==>]	[1]
	1402)		11 501 660					1 - 1	[1]
2		time of 33 seconds yie (1) WD1057+719	COS/FUV, TIME-TAG, PSA	G130M	FP-POS=3;			947 Secs (947 Secs)	
2	6/FUVB	()	COS/FOV, TIME-TAG, FSA	1096 A	LIFETIME-POS=L			[==>]	
	(COS.sp.13: 1389)	1		1090 A	P2;			[>]	
	1307)				SEGMENT=B;				[1]
					BUFFER-TIME=84				
		r time is exposure time	- 100 sec.		7				
3	ote that FUVA v	vill be turned off. DARK	S/C, DATA, NONE			QASISTATES CO	\$	1 Secs (1 Secs)	
		Dritte	S/C, DATA, NONE			FUV HVLOW HV	L	[==>]	[1]
	. 117 1	1. 66		e er	anaa: 1 1	OW		1>1	[1]
1	G130M/109		chedule the SEG-B to SEG-A reconfig COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			140 Secs (140 Secs)	
+	6/WAVECA		COS/FOV, TIME-TAG, WCA	1096 A	LIFETIME-POS=L			[==>]	
	L/LP2			1090 A	P2;			[>]	
3					SEGMENT=BOTH;				[1]
5					FLASH=NO				
C	omments: Expos	sure time same as wave ch FUVA will be turne	ecal for current TDS program 15384.	Although both segn	nents will remain on, onl	y the FUVA segment	has lines that are u	sable. This wavecal will be applied to the d	ata from ex
Copo 5		(1) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			425 Secs (425 Secs)	
	3	(1) WD10371717	COS/10 V, TIME 1710, 1571	1533 A	LIFETIME-POS=L			[==>]	
	(1303223)			1333 11	P4;			[>]	
					SEGMENT=BOTH;				[1]
					BUFFER-TIME=13				
$ _{C}$	ommants: Ruffa	r tima is 2/3 of the ETC	C calculated buffer time of 207 sec.		0			L	
6	***	(1) WD1057+719	COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			528 Secs (528 Secs)	
	7	(1)21007.713	000/10 + 11112 1110,1211	1577 A	LIFETIME-POS=L			[==>1	
	(1303224)				P4;				
					SEGMENT=BOTH;				[2]
					BUFFER-TIME=18				
C	omments: Buffe	r time is 2/3 of the ETO	C calculated buffer time of 269 sec.		O .				•
<i>C</i> 7		r time is 2/3 of the ETC (1) WD1057+719	C calculated buffer time of 269 sec. COS/FUV, TIME-TAG, PSA	G160M	FP-POS=3;			671 Secs (671 Secs)	
<u>C</u>	G160M/162	*	**	G160M 1623 A	FP-POS=3; LIFETIME-POS=L			671 Secs (671 Secs) [==>]	
<u>Ca</u>	G160M/162	*	**		FP-POS=3; LIFETIME-POS=L P4;			` '	
<u>Ca</u>	G160M/162	*	**		FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH;			` '	[2]
7	G160M/162	*	**		FP-POS=3; LIFETIME-POS=L P4;			` '	[2]



Proposal 15680 - WD1057+719 (53) - COS FUV Time Dependent Sensitivity - Target Connection Preparing for One-Gyro Operations

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Proposal 15680 - WD1057+719 (53) - COS FUV Time Dependent Sensitivity - Target Connection Preparing for One-Gyro Operations

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IM (COS.ta.131	(1) WD1057+719	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				33 Secs (33 Secs)	[1]
	1402)		11 501 660						[1]
2		(1) WD1057+719	COS/FUV, TIME-TAG, PSA	G130M	FP-POS=3;			947 Secs (947 Secs)	Τ
2	6/FUVB	(1) WD1037+719	COS/FUV, TIME-TAG, PSA	1096 A	LIFETIME-POS=L				
	(COS.sp.131 1389)	1		1090 A	P2;			[==>]	
	1389)				SEGMENT=B;				[1]
					BUFFER-TIME=84				
		time is exposure time	- 100 sec.		,				ļ
<i>Na</i>	ote that FUVA w	vill be turned off. DARK	S/C, DATA, NONE			QASISTATES CC	ıc	1 Secs (1 Secs)	1
3		DAKK	S/C, DATA, NONE			FUV HVLOW HV	Ľ	[==>]	617
						OW		[>]	[1]
Ca		- W - E	chedule the SEG-B to SEG-A reconfig		<u> </u>				
4	G130M/109 6/WAVECA		COS/FUV, TIME-TAG, WCA	G130M	FP-POS=3;			140 Secs (140 Secs)	
	L/LP2	Y.		1096 A	LIFETIME-POS=L P2;			[==>]	
					SEGMENT=BOTH;	•			[1]
					FLASH=NO	,			
Co				Although both segr	FLASH=NO		has lines that are i	usable. This wavecal will be applied to the c	data from ex
	<u>Sure 2, for whic</u> G160M/153	sure time same as wave th FUVA will be turned (1) WD1057+719		Although both segr	FLASH=NO		has lines that are t	usable. This wavecal will be applied to the a	data from ex
<i>Ca po</i> 5	sure 2, for whic	h FUVA will be turne	d off.		FLASH=NO nents will remain on, onl		has lines that are u		data from ex
<i>Ca po</i> 5	G160M/153 3	h FUVA will be turne	d off.	G160M	FLASH=NO ments will remain on, onl FP-POS=3; LIFETIME-POS=L	ly the FUVA segment	thas lines that are t	425 Secs (425 Secs)	data from ex
<i>Ca po</i> 5	G160M/153 3	h FUVA will be turne	d off.	G160M	FLASH=NO ments will remain on, onl FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13	ly the FUVA segment	t has lines that are t	425 Secs (425 Secs)	
	G160M/153 3 (1303223)	th FUVA will be turned (1) WD1057+719	d off. COS/FUV, TIME-TAG, PSA	G160M	FLASH=NO nents will remain on, onl FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH;	ly the FUVA segment	has lines that are t	425 Secs (425 Secs)	
	sure 2, for whic G160M/153 3 (1303223)	th FUVA will be turned (1) WD1057+719 time is 2/3 of the ETO	d off. COS/FUV, TIME-TAG, PSA C calculated buffer time of 207 sec.	G160M 1533 A	FLASH=NO ments will remain on, onl FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13	ly the FUVA segment	has lines that are u	425 Secs (425 Secs) [==>]	
	sure 2, for whice G160M/153 3 (1303223) mments: Buffer G160M/157	th FUVA will be turned (1) WD1057+719	d off. COS/FUV, TIME-TAG, PSA	G160M 1533 A	FLASH=NO nents will remain on, only FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3;	ly the FUVA segment	thas lines that are u	425 Secs (425 Secs) [==>] 528 Secs (528 Secs)	
	sure 2, for whic G160M/153 3 (1303223)	th FUVA will be turned (1) WD1057+719 time is 2/3 of the ETO	d off. COS/FUV, TIME-TAG, PSA C calculated buffer time of 207 sec.	G160M 1533 A	FLASH=NO ments will remain on, onl FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13	ly the FUVA segment	t has lines that are t	425 Secs (425 Secs) [==>]	
	sure 2, for whice G160M/153 3 (1303223) mments: Buffer G160M/157	th FUVA will be turned (1) WD1057+719 time is 2/3 of the ETO	d off. COS/FUV, TIME-TAG, PSA C calculated buffer time of 207 sec.	G160M 1533 A	FLASH=NO ments will remain on, onl FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L	ly the FUVA segment	has lines that are t	425 Secs (425 Secs) [==>] 528 Secs (528 Secs)	
	sure 2, for whice G160M/153 3 (1303223) mments: Buffer G160M/157	th FUVA will be turned (1) WD1057+719 time is 2/3 of the ETO	d off. COS/FUV, TIME-TAG, PSA C calculated buffer time of 207 sec.	G160M 1533 A	FLASH=NO ments will remain on, only FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4;	ly the FUVA segment	t has lines that are t	425 Secs (425 Secs) [==>] 528 Secs (528 Secs)	[1]
<u>Ca</u> 6	omments: Buffer G160M/157 G160M/153 G1303223)	th FUVA will be turned (1) WD1057+719 trime is 2/3 of the ETC (1) WD1057+719	d off. COS/FUV, TIME-TAG, PSA C calculated buffer time of 207 sec.	G160M 1533 A	FLASH=NO ments will remain on, only FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18	ly the FUVA segment	has lines that are t	425 Secs (425 Secs) [==>] 528 Secs (528 Secs)	[1]
<u>Ca</u> 6	omments: Buffer G160M/157 G160M/157 G160M/157 G160M/157 G1303224)	th FUVA will be turned (1) WD1057+719 trime is 2/3 of the ETC (1) WD1057+719	COS/FUV, TIME-TAG, PSA Coalculated buffer time of 207 sec. COS/FUV, TIME-TAG, PSA	G160M 1533 A	FLASH=NO ments will remain on, only FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18	ly the FUVA segment	has lines that are t	425 Secs (425 Secs) [==>] 528 Secs (528 Secs)	[1]
<u>Ca</u> 6	mments: Buffer (1303224)	time is 2/3 of the ETC	Cos/Fuv, Time-TAG, PSA Cos/Fuv, Time of 207 sec. Cos/Fuv, Time-TAG, PSA Cos/Fuv, Time-TAG, PSA	G160M 1533 A G160M 1577 A	FLASH=NO nents will remain on, only FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18 0 FP-POS=3; LIFETIME=18	ly the FUVA segment	t has lines that are t	425 Secs (425 Secs) [==>] 528 Secs (528 Secs) [==>]	[1]
<u>Ca</u> 6	mments: Buffer G160M/157 G160M/153 G1303223) mments: Buffer G160M/157 G1303224)	time is 2/3 of the ETC	Cos/Fuv, Time-TAG, PSA Cos/Fuv, Time of 207 sec. Cos/Fuv, Time-TAG, PSA Cos/Fuv, Time-TAG, PSA	G160M 1533 A G160M 1577 A	FLASH=NO ments will remain on, only FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18 0 FP-POS=3; LIFETIME=18 0	ly the FUVA segment	has lines that are t	425 Secs (425 Secs) [==>] 528 Secs (528 Secs) [==>] 671 Secs (671 Secs)	[2]
<u>Ca</u> 6	mments: Buffer G160M/157 G160M/153 G1303223) mments: Buffer G160M/157 G1303224)	time is 2/3 of the ETC	Cos/Fuv, Time-TAG, PSA Cos/Fuv, Time of 207 sec. Cos/Fuv, Time-TAG, PSA Cos/Fuv, Time-TAG, PSA	G160M 1533 A G160M 1577 A	FLASH=NO nents will remain on, only FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=13 8 FP-POS=3; LIFETIME-POS=L P4; SEGMENT=BOTH; BUFFER-TIME=18 0 FP-POS=3; LIFETIME=18	y the FUVA segment	thas lines that are t	425 Secs (425 Secs) [==>] 528 Secs (528 Secs) [==>] 671 Secs (671 Secs)	[1]

