

# 13975 - COS NUV Internal/External Wavelength Scale Monitor

Cycle: 22, Proposal Category: CAL/COS (Availability Mode: RESTRICTED)

#### **INVESTIGATORS**

Name	Institution	E-Mail
Dr. Paule G. Sonnentrucker (PI) (ESA Member) (Contact)	Space Telescope Science Institute - ESA	sonnentr@stsci.edu

#### **VISITS**

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used		OP Current with Visit?
01	(1) HD-6655	COS/NUV	1	10-Oct-2015 21:27:10.0	yes
02	(1) HD-6655	COS/NUV	1	10-Oct-2015 21:27:13.0	yes
52	(2) HD-6655-UPDATED-PM	COS/NUV	1	10-Oct-2015 21:27:15.0	yes
03	(1) HD-6655	COS/NUV	1	10-Oct-2015 21:27:17.0	yes
53	(1) HD-6655	COS/NUV	1	10-Oct-2015 21:27:19.0	yes

<sup>5</sup> Total Orbits Used

#### **ABSTRACT**

This program monitors the offset between the internal and external wavelength scales: this offset is referred to as "DELTA" in the wavelength dispersion reference file and corrects for the shift between the WCA and PSA in TV03 versus the shift between the WCA and PSA in orbit: (WCA-PSA\_)\_TV03 - (WCA - PSA)\_orbit. Analysis of TV data indicates that this DELTA (offset) is cenwave and FPPOS independent for a particular grating, but it is grating and stripe dependent. To verify and monitor this, this program observes various cenwaves.

Proposal 13975 (STScI Edit Number: 5, Created: Saturday, October 10, 2015 8:27:21 PM EST) - Overview

### **OBSERVING DESCRIPTION**

This program monitors the offset between the internal and external wavelength scales by obtaining spectra of a select number of cenwaves for the G230L, G285M, G225M and G185M gratings three times per cycle. All data are obtained at FP-POS=3. This program structure has been modified compared to that of cycle 21 program 13529 due to GS acquisition issues. The double PEAKXD sequence was replaced by the traditional ACQ/SEARCH, ACQ/PEAKXD and ACQ/PEAKD for the remaining visits following the recommendations of the failure investigation for V02. The BETWEEN ranges for the remaining visits were updated accordingly. The Proper motion in RA was udpated with recent measurements; a modified naming convention was used for HD6655 to execute V52 (repeat of failed V02).

Proposal 13975 - Visit 01 -	<ul> <li>COS NI IV Internal/Extern</li> </ul>	al Wavelength Scale Monitor
1 10003a1 13313 - VISIL 0 1 -		ai vvaveierigiri ocale iviorillor

Diagnostic Status: Warning   Scientific Instruments: COS/NUV   Special Requirements: BETWEEN 17-FEB-2015:00:00:00 AND 22-FEB-2015:00:00:00		Proposal 13975, Visit 01, completed Sun Oct 11 01:27:21 GMT 20
Special Requirements: BETWEEN 17-FEB-2015:00:00:00 AND 22-FEB-2015:00:00:00  (Visit 01) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.	Sit	Diagnostic Status: Warning
(Visit 01) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.	5	Scientific Instruments: COS/NUV
nostie		Special Requirements: BETWEEN 17-FEB-2015:00:00:00 AND 22-FEB-2015:00:00:00
	nosti	

ts	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
l g	(1)	HD-6655	RA: 01 05 18.2073 (16.3258637d)	Proper Motion RA: 0.01101 sec of time/yr	V=8.05+/-0.05	Reference Frame: ICRS
<u>a</u>			Dec: -72 33 14.47 (-72.55402d)	Proper Motion Dec: -0.118 arcsec/yr		
15			Equinox: J2000	Epoch of Position: 2000		
×				Radial Velocity: 19.5 km/sec		
诓	Comment	s: This object was generated	d by the target selector and retrieved from the SIM	BAD database.		

Proposal 13975 - Visit 01 - COS NUV Internal/External Wavelength Scale Monitor

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.627	(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L	STRIPE=MEDIUM			1.5 Secs (1.5 Secs)	
	221)			2635 A				[==>]	[1]
2	(COS.sa.627	(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L	STRIPE=MEDIUM			1.5 Secs (1.5 Secs)	
	221)			2635 A				[==>]	[1]
3	(COS.sa.627	(1) HD-6655	COS/NUV, ACQ/PEAKD, PSA	G230L	NUM-POS=5;			1 Secs (1 Secs)	
	221)			2635 A	STEP-SIZE=1;			[==>]	
					CENTER=FLUX-W T-FLR	I			[1]
4	(COS.sp.534	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=80.			80 Secs (80 Secs)	
	878)			2635 A	; FP-POS=3			[==>]	[1]
C C St	ount rate stripe ount rate stripe	e B 7,840.924 s only second order 66	r light not calculated  COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=80.			80 Secs (80 Secs)	
]	(CO3.sp.027 225)	(1) HD-0033	COS/NOV, TIME-TAG, FSA	2950 A	;			[==>]	+
				2930 A	FP-POS=3			1>1	[1]
Buff 6	(COS.sp.627	84	COS/NUV, TIME-TAG, PSA	G230L 3000 A	BUFFER-TIME=80.; ; FP-POS=3			80 Secs (80 Secs) [==>]	[1]
Cou C C St	nt rate entire d ount rate Stripe ount rate Stripe	e B 10,480.389 s only second order							
7	(COS.sp.627	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=90			90 Secs (90 Secs)	
	344)			2676 A	; FP-POS=3			[==>]	[1]
Cou C C C		e B 310.912 e C 116.614	3 A) 0.292						
8	(COS.sp.627	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=33			440 Secs (440 Secs)	
	345)			2217 A	0; FP-POS=3			[==>]	[1]
Cou C C C		e B 255.146 e C 281.358	9 A) 0.338						
•									

Proposal 13975 - Visit 01 - COS NUV Internal/External Wavelength Scale Monitor (COS.sp.627 (1) HD-6655 BUFFER-TIME=75 COS/NUV, TIME-TAG, PSA G185M 860 Secs (860 Secs) 346) 2010 A *[==>1* [1] FP-POS=3 Comments: Brightest Pixel (at 2120.91 A) 0.247 Count rate entire detector 1,107.392 Count rate Stripe A 31.289 Count rate Stripe B 58.201 Count rate Stripe C 179.042 Buffer time (sec) 2,130 Server Version: 20150609 Orbit 1 Exp. 2 Exp. 3 **€-**ъ Ехр. 4 **€--** Exp. 5 **Orbit Structure €-->** Exp. 6 Unused Orbital Visibility = 55 GS Acq €-- Ехр. 7 Home Exp. 1 **€**--**>** Exp. 9 Occultation **€--ъ** Ехр. 8 1000 1500 2000 2500 3000 3500 4500 5000 5500 sec 500 4000

Proposal 13975 - Visit 02 -	COS NI IV Interna	al/External Wavelen	oth Scale Monitor
F 10003ai 13313 - Visit 02 -		aı/∟xıcıııaı vvavcıcıı	ulli Scale Monilon

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ſ		Proposal 13975, Visit 02, failed	n Oct 11 01:27:21 GMT 2015
١	sit	Diagnostic Status: Warning	
١	<b>&gt;</b>	Scientific Instruments: COS/NUV	
-		Special Requirements: BETWEEN 24-MAY-2015:00:00:00 AND 08-JUN-2015:00:00:00	

(Visit 02) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets Diagnostics Name **Target Coordinates** Targ. Coord. Corrections Fluxes Miscellaneous HD-6655 Proper Motion RA: 0.01101 sec of time/yr V=8.05+/-0.05Reference Frame: ICRS RA: 01 05 18.2073 (16.3258637d) Dec: -72 33 14.47 (-72.55402d) Proper Motion Dec: -0.118 arcsec/yr Equinox: J2000 Epoch of Position: 2000 Radial Velocity: 19.5 km/sec Comments: This object was generated by the target selector and retrieved from the SIMBAD database.

Proposal 13975 - Visit 02 - COS NUV Internal/External Wavelength Scale Monitor

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.627	(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L	STRIPE=MEDIUM			1.5 Secs (1.5 Secs)	
	221)			2635 A				[==>]	[1]
2	(COS.sa.627	(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L	STRIPE=MEDIUM			1.5 Secs (1.5 Secs)	
	221)			2635 A				[==>]	[1]
3	(COS.sa.627	(1) HD-6655	COS/NUV, ACQ/PEAKD, PSA	G230L	NUM-POS=5;			1 Secs (1 Secs)	
	221)			2635 A	STEP-SIZE=1;			[==>]	
					CENTER=FLUX-W T-FLR	I			[1]
4	(COS.sp.534	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=80.			80 Secs (80 Secs)	
	878)			2635 A	; FP-POS=3			[==>]	[1]
Co Str Buffe	ount rate stripe ount rate stripe	B 7,840.924 s only second order 66	cos/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=80.			80 Secs (80 Secs)	
	225)	(1) 11D-0033	COS/NOV, TIME-TAG, TSA	2950 A	;			[==>]	
				2)30 A	FP-POS=3			1>1	[1]
$Buff \epsilon$	(COS.sp.627	84	COS/NUV, TIME-TAG, PSA	G230L 3000 A	BUFFER-TIME=80.; FP-POS=3			80 Secs (80 Secs) [==>]	[1]
Cour Co Co Str	nt rate entire de ount rate Stripe ount rate Stripe	e B 10,480.389 s only second order			11 105-3				
7	(COS.sp.627	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=90.			90 Secs (90 Secs)	
	344)			2676 A	; FP-POS=3			[==>]	[1]
Cour Ca Ca Ca		e B 310.912 e C 116.614	3 A) 0.292						
8	(COS.sp.627	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=33			440 Secs (440 Secs)	
	345)			2217 A	0; FP-POS=3			[==>]	[1]
Cour Ca Ca Ca		e B 255.146 e C 281.358	A) 0.338						

Proposal 13975 - Visit 02 - COS NUV Internal/External Wavelength Scale Monitor (COS.sp.627 (1) HD-6655 BUFFER-TIME=75 COS/NUV, TIME-TAG, PSA G185M 860 Secs (860 Secs) 346) 2010 A *[==>1* [1] FP-POS=3 Comments: Brightest Pixel (at 2120.91 A) 0.247 Count rate entire detector 1,107.392 Count rate Stripe A 31.289 Count rate Stripe B 58.201 Count rate Stripe C 179.042 Buffer time (sec) 2,130 Server Version: 20150609 Orbit 1 Exp. 2 Exp. 3 **€-**ъ Ехр. 4 **€--** Exp. 5 **Orbit Structure €-->** Exp. 6 Unused Orbital Visibility = 55 GS Acq €-- Ехр. 7 Home Exp. 1 **€**•• Exp. 9 Occultation **€--ъ** Ехр. 8 500 1000 1500 2000 2500 3000 3500 4500 5000 5500 sec 4000

Proposal 13975 - Visit 52 -	COS NIIV	Internal/External	Wavelength	Scale Monitor
1 10003a1 13313 - VISIL 32 -		IIIIGIIIAI/ LAIGIIIAI	vvavelengin	Ocale Monitor

Proposal 13975, Visit 52, implementation Sun Oct 11 01:27:21 GMT 2015

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Diagnostic Status: Warning Scientific Instruments: COS/NUV

Special Requirements: BETWEEN 23-NOV-2015:00:00:00 AND 07-DEC-2015:00:00:00

Comments: This visit is a repeat of failed V02

(Visit 52) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 52) Warning (Form): For the best data quality, it is strongly recomn

(Visit 52) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

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٥	0	# Name		Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
į	15	( )	5-UPDATED-	RA: 01 05 18.2073 (16.3258637d)	Proper Motion RA: 48.7 mas/yr	V=8.05+/-0.05	Reference Frame: ICRS	
}	5	PM		Dec: -72 33 14.47 (-72.55402d)	Proper Motion Dec: -0.118 arcsec/yr			
	-			Equinox: J2000	Epoch of Position: 2000			
13	וַט				Radial Velocity: 19.5 km/sec			
ئا	Comments: This object was generated by the target selector and retrieved from the SIMBAD database. The PM in RA was updated to reflect more recent measurements from Gaia and Tycho2.							
		Extended=NO						

Proposal 13975 - Visit 52 - COS NUV Internal/External Wavelength Scale Monitor

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.739		COS/NUV, ACQ/SEARCH, PSA	G230L	SCAN-SIZE=3;			1 Secs (1 Secs)	
	058)	TED-PM		2635 A	STEP-SIZE=1.767;			[==>]	
					CENTER=FLUX-V T-FLR	V			[1]
2			COS/NUV, ACQ/PEAKXD, PSA	G230L	STRIPE=MEDIUM			1.5 Secs (1.5 Secs)	
	221)	TED-PM		2635 A				[==>]	[1]
3			COS/NUV, ACQ/PEAKD, PSA	G230L	NUM-POS=5;			1 Secs (1 Secs)	
	058)	TED-PM		2635 A	STEP-SIZE=1;			[==>]	
					CENTER=FLUX-V T-FLR	V			[1]
4		(2) HD-6655-UPDA	COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=17			80 Secs (80 Secs)	
	878)	TED-PM		2635 A	7; FP-POS=3			[==>]	[1]
Co St	<u>er time (sec) 2</u> (COS.sp.627	e B 7,840.924 s only second order lig 66 (2) HD-6655-UPDA	cht not calculated  COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=12			80 Secs (80 Secs)	
	225)	TED-PM		2950 A	3; FP-POS=3			[==>]	[1]
Co St	ount rate stripe ount rate stripe ripe C contain: er time (sec) 2	e B 7,840.924 s only second order lig	eht not calculated						
6		(2) HD-6655-UPDA	COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=12			80 Secs (80 Secs)	
	343)	TED-PM		3000 A	4; FP-POS=3			[==>]	[1]
Cour Co Co St	nt rate entire d ount rate Stripe ount rate Stripe	e B  11,134.679 s only second order lig							
7			COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=11			90 Secs (90 Secs)	
	344)	TED-PM		2676 A	42; FP-POS=3			[==>]	[1]
Cour Co Co St	nt rate entire d ount rate Stripe ount rate Stripe	e B=10,480.389 s only second order lig							

Proposal 13975 - Visit 52 - COS NUV Internal/External Wavelength Scale Monitor (COS.sp.739 (2) HD-6655-UPDA COS/NUV, TIME-TAG, PSA BUFFER-TIME=98 G225M 440 Secs (440 Secs) 161) ŤÉD-PM 3; 2217 A *[==>1* [1] FP-POS=3 Comments: rightest Pixel (at 2324.59 A) 0.338 Count rate entire detector 1,501.118 Count rate Stripe A 125.753 Count rate Stripe B 255.146 Count rate Stripe C 281.358 Buffer time (sec) 1,571 (COS.sp.739 (2) HD-6655-UPDA COS/NUV, TIME-TAG, PSA G185M BUFFER-TIME=12 860 Secs (860 Secs) 170) ŤÉD-PM 2010 A [==>] [1] FP-POS=3 Comments: Brightest Pixel (at 2120.91 A) 0.247 Count rate entire detector 1,107.392 Count rate Stripe A 31.289 Count rate Stripe B 58.201 Count rate Stripe C 179.042 Buffer time (sec) 2,130 Server Version: 20150609 Orbit 1 Exp. 2 Exp. 3 ۥ• Exp. 4 **€**--**>** Exp. 5 **Orbit Structure €-->** Exp. 6 \*\*\* ORBITAL VISIBILITY OVERRUN = 61 **€-**→ Exp. 7 GS Acq Decultation Exp. 1 €-- Ехр. 8 **€-**≱ Ехр. 9 Home 4500 500 1000 1500 2000 2500 3000 3500 4000 5000 5500 sec

## Proposal 13975 - Visit 03 - COS NUV Internal/External Wavelength Scale Monitor

Proposal 13975, Visit 03, completed Sun Oct 11 01:27:22 GMT 2015

**Diagnostic Status: Warning** Scientific Instruments: COS/NUV

Special Requirements: BETWEEN 01-SEP-2015:00:00:00 AND 14-SEP-2015:00:00:00

Comments: This was visit 53 (swapped V03 and V53 to keep the visit numbers in numeric order). This visit will be executed instead of V03.

This visit includes the overrun resulting from adding the ACQ/SEARCH exposures and retaining the original exposure times for exposures #8 and #9.

**Diagnostics** (Visit 03) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Visit 03) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

ts	# Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
ge	(1) HD-6655	RA: 01 05 18.2073 (16.3258637d)	Proper Motion RA: 0.01101 sec of time/yr	V=8.05+/-0.05	Reference Frame: ICRS	
آي		Dec: -72 33 14.47 (-72.55402d)	Proper Motion Dec: -0.118 arcsec/yr			
٦		Equinox: J2000	Epoch of Position: 2000			
×			Radial Velocity: 19.5 km/sec			
ΙĒ	Comments: This object was ge	enerated by the target selector and retrieved from the	s SIMBAD database.			

Proposal 13975 - Visit 03 - COS NUV Internal/External Wavelength Scale Monitor

	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1 (	(COS.sa.739	(1) HD-6655	COS/NUV, ACQ/SEARCH, PSA	G230L	SCAN-SIZE=3;	GSPAIR S0XG2765		1 Secs (1 Secs)	
	058)			2635 A	STEP-SIZE=1.767;	43F2S0XJ267306F1		[==>]	
					CENTER=FLUX-W T-FLR	r			[1]
		(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L	STRIPE=MEDIUM			1.5 Secs (1.5 Secs)	
	221)			2635 A				[==>]	[1]
		(1) HD-6655	COS/NUV, ACQ/PEAKD, PSA	G230L	NUM-POS=5;			1 Secs (1 Secs)	
l '	058)			2635 A	STEP-SIZE=1;			[==>]	
					CENTER=FLUX-W T-FLR	r			[1]
		(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=17			80 Secs (80 Secs)	
	878)			2635 A	7; FP-POS=3			[==>]	[1]
Coi Stri Buffer	time (sec) 20	B 7,840.924 only second orde	r light not calculated  COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=12			80 Secs (80 Secs)	
	(CO3.sp.027 225)	(1) HD-0033	COS/NOV, TIME-TAG, FSA	2950 A	3;			[==>]	
				2)30 11	FP-POS=3			1>1	[1]
Count Coi	rate entire de int rate Stripe	st Pixel (at 2913.1 etector 12,802.53 e A 828.999	(1 A) 10.686 9						
Count Coi Coi Stri Buffer	rate entire de int rate Stripe int rate Stripe pe C contains time (sec) 1	etector 12,802.539 A 828.999 B 11,134.679 S only second orde 84	9 r light not calculated						T
Count Cou Cou Stri Buffer	rate entire do int rate Stripe int rate Stripe pe C contains time (sec) 16 (COS.sp.627	etector 12,802.539 e A 828.999 e B 11,134.679 s only second orde	9	G230L	BUFFER-TIME=12 4:			80 Secs (80 Secs)	
Count Cou Cou Stri Buffer	rate entire de int rate Stripe int rate Stripe pe C contains time (sec) 1	etector 12,802.539 A 828.999 B 11,134.679 S only second orde 84	9 r light not calculated	G230L 3000 A	BUFFER-TIME=12 4; FP-POS=3			80 Secs (80 Secs) [==>]	[1]
Count Cov Stri Buffer 6 ( Comm Count Count Cov Stri	rate entire de unt rate Stripe unt rate Stripe pe C contains time (sec) 1s (COS.sp.627 343)  nents: Brighte de unt rate Stripe	etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84 (1) HD-6655  st Pixel (at 2913.1 etector 12,802.539 2 A 828.999 3 B 11,134.679 3 only second orde	r light not calculated  COS/NUV, TIME-TAG, PSA		4;				[1]
Count Cou Cou Buffer 6 ( Comm Count Cou Stri Buffer 7 (	rate entire de unt rate Stripe pe C contains time (sec) 16 (COS.sp.627 343)  nents: Brighte rate entire de unt rate Stripe pe C contains time (sec) 16 (COS.sp.627 (COS.sp.627 (COS.sp.627	etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84 (1) HD-6655  st Pixel (at 2913.1 etector 12,802.539 2 A 828.999 3 B 11,134.679 3 only second orde	r light not calculated  COS/NUV, TIME-TAG, PSA  (1 A) 10.686		4; FP-POS=3 BUFFER-TIME=11				[1]
Count Cou Stri Buffer 6 ( Comm Count Cou Stri Buffer 7 (	rate entire de unt rate Stripe unt rate Stripe pe C contains time (sec) 1s (COS.sp.627 343)  ments: Brighte de unt rate Stripe unt rate Stripe pe C contains time (sec) 1s	etector 12,802.539 A 828.999 B 11,134.679 c only second orde 84 (1) HD-6655  st Pixel (at 2913.1 etector 12,802.539 A 828.999 B 11,134.679 c only second orde 84	r light not calculated  COS/NUV, TIME-TAG, PSA  (1 A) 10.686  r light not calculated	3000 A	4; FP-POS=3 BUFFER-TIME=11 42;			[==>]	
Count Coo Stri Buffer  Comm Count Coo Stri Buffer  Con Stri Stri Stri Stri Stri Stri Stri Stri	rate entire de unt rate Stripe pe C contains time (sec) 16 (COS.sp.627 343)  nents: Brighte rate entire de unt rate Stripe pe C contains time (sec) 16 (COS.sp.627 344)	etector 12,802.539 A 828.999 B 11,134.679 c only second orde 84 (1) HD-6655  st Pixel (at 2913.1 etector 12,802.539 A 828.999 B 11,134.679 c only second orde 84	r light not calculated  COS/NUV, TIME-TAG, PSA  I A) 10.686  r light not calculated  COS/NUV, TIME-TAG, PSA	3000 A G285M	4; FP-POS=3 BUFFER-TIME=11			[==>] 90 Secs (90 Secs)	[1]

Proposal 13975 - Visit 03 - COS NUV Internal/External Wavelength Scale Monitor (COS.sp.739 (1) HD-6655 BUFFER-TIME=98 COS/NUV, TIME-TAG, PSA G225M 440 Secs (440 Secs) **473**) 3; 2217 A *[==>1* [1] FP-POS=3 Comments: rightest Pixel (at 2324.59 A) 0.338 Count rate entire detector 1,501.118 Count rate Stripe A 125.753 Count rate Stripe B 255.146 Count rate Stripe C 281.358 Buffer time (sec) 1,571 (COS.sp.739 (1) HD-6655 G185M BUFFER-TIME=12 860 Secs (860 Secs) COS/NUV, TIME-TAG, PSA 2010 A [==>] [1] FP-POS=3 Comments: Brightest Pixel (at 2120.91 A) 0.247 Count rate entire detector 1,107.392 Count rate Stripe A 31.289 Count rate Stripe B 58.201 Count rate Stripe C 179.042 Buffer time (sec) 2,130 Server Version: 20150609 Orbit 1 Exp. 2 Exp. 3 ۥ• Exp. 4 **€**--**>** Exp. 5 **Orbit Structure €-->** Exp. 6 Occultation **€-**→ Exp. 7 \*\*\* ORBITAL VISIBILITY OVERRUN = 61 GS Acq Exp. 1 €-- Ехр. 8 **€-**≱ Ехр. 9 Home 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec

Proposal 13975 - Visit 53 - COS NUV Internal/External Wavelength Scale Monitor

Proposal 13975, Visit 53, withdrawn Sun Oct 11 01:27:22 GMT 2015

**Diagnostic Status: Warning** 

Scientific Instruments: COS/NUV

Special Requirements: BETWEEN 01-SEP-2015:00:00:00 AND 14-SEP-2015:00:00:00

Comments: This visit will not be executed and will be withdrawn.
This was visit 03 (swapped V03 and V53 to keep the visit numbers in numeric order).
This visit does not include the overrun resulting from adding the ACQ/SEARCH exposures. The overrun was absorbed by the exposure times for exposures #8 and #9 at very low SN cost.

(Visit 53) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

ts	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
ge	(1)	HD-6655	RA: 01 05 18.2073 (16.3258637d)	Proper Motion RA: 0.01101 sec of time/yr	V=8.05+/-0.05	Reference Frame: ICRS
ā			Dec: -72 33 14.47 (-72.55402d)	Proper Motion Dec: -0.118 arcsec/yr		
٦			Equinox: J2000	Epoch of Position: 2000		
<u>×</u> .				Radial Velocity: 19.5 km/sec		
	Comments:	This object was generated	by the target selector and retrieved from the SIMI	BAD database.		

Proposal 13975 - Visit 53 - COS NUV Internal/External Wavelength Scale Monitor

	Label ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1 (0	COS.sa.739	(1) HD-6655	COS/NUV, ACQ/SEARCH, PSA	G230L	SCAN-SIZE=3;	GSPAIR S0XG2765		1 Secs (1 Secs)	
0.	)58)			2635 A	STEP-SIZE=1.767;	43F2S0XJ267306F1		[==>]	
					CENTER=FLUX-W T-FLR	r			[1]
		(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L	STRIPE=MEDIUM			1.5 Secs (1.5 Secs)	
2	221)			2635 A				[==>]	[1]
		(1) HD-6655	COS/NUV, ACQ/PEAKD, PSA	G230L	NUM-POS=5;			1 Secs (1 Secs)	
0	)58)			2635 A	STEP-SIZE=1;			[==>]	
					CENTER=FLUX-W T-FLR	r			[1]
		(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=17			80 Secs (80 Secs)	
8	378)			2635 A	7; FP-POS=3			[==>]	[1]
Cour Strip Buffer	pe C contains time (sec) 20	e B 7,840.924 s only second orde	r light not calculated  COS/NUV, TIME-TAG, PSA	G230L	BUFFER-TIME=12			80 Secs (80 Secs)	
	225)	(1) 11D-0033	COS/NOV, TIME-TAG, TSA	2950 A	3;			[==>]	
				273011	FP-POS=3			1>1	[1]
Count to	rate entire de int rate Stripe	est Pixel (at 2913.1 etector 12,802.539 e A 828.999	1 A) 10.686 9		17-705-3				1
Count i Coun Coun Strip Buffer	rate entire de int rate Stripe int rate Stripe pe C contains time (sec) 18	etector 12,802.539 e A 828.999 e B 11,134.679 s only second orde 84	9 r light not calculated	COOL				90 S (90 S)	
Count is Coun Coun Strip Buffer	rate entire de int rate Stripe int rate Stripe pe C contains time (sec) 18	etector 12,802.539 e A 828.999 e B 11,134.679 s only second orde	9	G230L	BUFFER-TIME=12 4;			80 Secs (80 Secs)	
Count is Coun Coun Strip Buffer	rate entire de int rate Stripe int rate Stripe pe C contains time (sec) 18 COS.sp.627	etector 12,802.539 e A 828.999 e B 11,134.679 s only second orde 84	9 r light not calculated	G230L 3000 A	BUFFER-TIME=12			80 Secs (80 Secs) [==>]	[1]
Count is Count in Cou	rate entire de int rate Stripe int rate Stripe int rate Stripe int rate (sec) 18 COS.sp.627 343) ents: Brighte int rate Stripe int rate Stripe int rate Stripe int rate Stripe	etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84 (1) HD-6655  est Pixel (at 2913.1 etector 12,802.539 2 A 828.999 2 only second orde	r light not calculated  COS/NUV, TIME-TAG, PSA		BUFFER-TIME=12 4;				[1]
Count is Count in Count in Strip Buffer 6 ((( 3) Comme Count is Count in Count is Count in Count is Count in Co	rate entire de nut rate Stripe tot Contains time (sec) 18 (COS.sp.627 (343)  ents: Brighte rate entire de nut rate Stripe to Contains time (sec) 18 (COS.sp.627 (C	etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84 (1) HD-6655  est Pixel (at 2913.1 etector 12,802.539 2 A 828.999 2 only second orde	r light not calculated  COS/NUV, TIME-TAG, PSA  (1 A) 10.686		BUFFER-TIME=12 4; FP-POS=3 BUFFER-TIME=11				[1]
Count is Count in Count in Strip Buffer 6 ((( 3) Comme Count is Count in Count is Count in Count is Count in Co	rate entire de ent rate Stripe ent rate Stripe ent contains time (sec) 18 (COS.sp.627) 443)  ents: Brighte entire de ent rate Stripe ent contains time (sec) 18 (sec)	etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84 (1) HD-6655  est Pixel (at 2913.1 etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84	r light not calculated  COS/NUV, TIME-TAG, PSA  I A) 10.686  r light not calculated	3000 A	BUFFER-TIME=12 4; FP-POS=3 BUFFER-TIME=11 42;			[==>]	[1]
Count is Count in Count in Count in Strip Buffer.  6 (( 3. Comme Count in C	rate entire de nut rate Stripe unt rate Stripe ent Contains time (sec) 16 COS.sp.627 343)  ents: Brighte rate entire de nut rate Stripe ent rate Stripe ent contains time (sec) 16 COS.sp.627 344)	etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84 (1) HD-6655  est Pixel (at 2913.1 etector 12,802.539 2 A 828.999 2 B 11,134.679 3 only second orde 84	r light not calculated  COS/NUV, TIME-TAG, PSA  I A) 10.686  r light not calculated  COS/NUV, TIME-TAG, PSA	3000 A G285M	BUFFER-TIME=12 4; FP-POS=3 BUFFER-TIME=11			[==>] 90 Secs (90 Secs)	

Proposal 13975 - Visit 53 - COS NUV Internal/External Wavelength Scale Monitor (COS.sp.739 (1) HD-6655 BUFFER-TIME=98 COS/NUV, TIME-TAG, PSA G225M 420 Secs (420 Secs) 161) 3; 2217 A *[==>1* [1] FP-POS=3 Comments: rightest Pixel (at 2324.59 A) 0.338 Count rate entire detector 1,501.118 Count rate Stripe A 125.753 Count rate Stripe B 255.146 Count rate Stripe C 281.358 Buffer time (sec) 1,571 (COS.sp.739 (1) HD-6655 G185M BUFFER-TIME=12 828 Secs (828 Secs) COS/NUV, TIME-TAG, PSA 170) 2010 A [==>] [1] FP-POS=3 Comments: Brightest Pixel (at 2120.91 A) 0.247 Count rate entire detector 1,107.392 Count rate Stripe A 31.289
Count rate Stripe B 58.201
Count rate Stripe C 179.042
Buffer time (sec) 2,130 Server Version: 20150609 Orbit 1 Exp. 2 Exp. 3 ۥ• Exp. 4 **€**--**>** Exp. 5 **Orbit Structure €-->** Exp. 6 Occultation Unused Orbital Visibility = 0 GS Acq €-- Ехр. 7 Exp. 1 **€-**• Ехр. 8 **€..** Exp. 9 Home 1000 500 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec