Proposal 15387 (STScI Edit Number: 1, Created: Friday, October 20, 2017 7:00:57 PM EST) - Overview



15387 - NUV Spectroscopic Sensitivity Monitoring

Cycle: 25, Proposal Category: CAL/COS (Availability Mode: RESTRICTED)

INVESTIGATORS

Name	Institution	E-Mail
Joanna Taylor (PI) (Contact)	Space Telescope Science Institute	jotaylor@stsci.edu

VISITS

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used		OP Current with Visit?
L1	(1) WD1057+719	COS/NUV	1	20-Oct-2017 20:00:49.0	yes
L2	(1) WD1057+719	COS/NUV	1	20-Oct-2017 20:00:51.0	yes
M1	(2) G191B2B	COS/NUV	2	20-Oct-2017 20:00:53.0	yes
M2	(2) G191B2B	COS/NUV	2	20-Oct-2017 20:00:56.0	yes

6 Total Orbits Used

ABSTRACT

Monitor the sensitivity of each NUV grating to detect any changes due to contamination or other causes. Observations execute twice a year (July and January). Iin Cycle 24, additional cenwaves were added for the medium-resolution gratings (G185M/2010, G285M/2850, G225M/2306 and G225M/2410). These additional cenwaves are also observed in Cycle 25.

OBSERVING DESCRIPTION

Obtain exposures in all NUV gratings -- G230L, G185M, G225M, and G285M -- 2 times a year in order to measure the TDS. The first two gratings have stable behavior, while the last two are experiencing steady sensitivity declines. L visits are one orbit each, while M visits are 2 orbits each for a total of 6 orbits. This was increased from 4 to 6 orbits in Cycle 24 because 4 extra cenwaves were added to the M gratings.

Proposal 15387 - Visit L1 - NUV Spectroscopic Sensitivity Monitoring

Proposal 15387, Visit L1

Sat Oct 21 00:00:57 GMT 2017

Diagnostic Status: Warming

Diagnostic Status: Warning
Scientific Instruments: COS/NUV

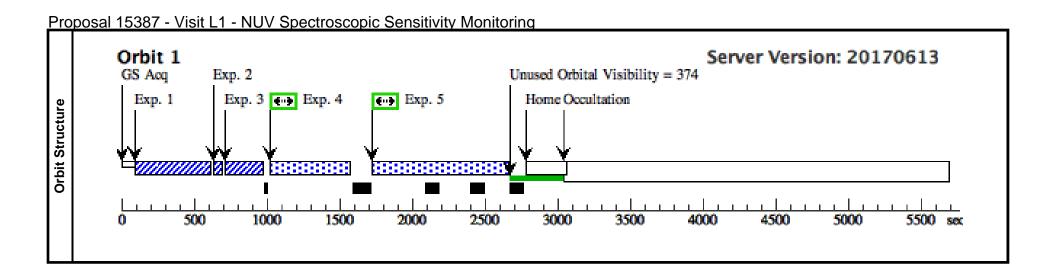
Special Requirements: SCHED 100%; BETWEEN 20-JAN-2018:00:00:00 AND 20-FEB-2018:00:00:00

(Visit L1) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
ts	(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d)	Proper Motion RA: -0.00973 sec of time/yr	V=14.68	Reference Frame: ICRS
ğ			Dec: +71 38 2.99 (71.63416d)	Proper Motion Dec: -0.02 arcsec/yr		
⊒I			Equinox: J2000	Epoch of Position: 2000.0		
ed	Comments PM, coord	s: HST FASTEX standard ds from USNOB				

GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch Extended=NO

	#	Label Target (ETC Run)	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	G230L - AC (1) WD1057+719 Q/SEARCH (COS.sa.102 6871)	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767			0.7 Secs (0.7 Secs) [==>]	[1]
es.	2	G230L - AC (1) WD1057+719 Q/PEAKXD (COS.sa.102 6873)	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A				0.7 Secs (0.7 Secs) [==>]	[1]
Exposures	3	G230L - AC (1) WD1057+719 Q/PEAKD (COS.sa.102 6871)	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	CENTER=FLUX-W T-FLR; NUM-POS=9.0; STEP-SIZE=0.6			0.7 Secs (0.7 Secs) [==>]	[1]
	4	G230L - 263 (1) WD1057+719 5 A (COS.sp.102 6883)	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=48 0; FP-POS=3			540.0 Secs (540 Secs) [==>]	[1]
	5	G230L - 295 (1) WD1057+719 0 A (COS.sp.102 6886)	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=30 0; FP-POS=3			850.0 Secs (850 Secs) [==>]	[1]



Proposal 15387 - Visit L2 - NUV Spectroscopic Sensitivity Monitoring

Proposal 15387, Visit L2 Sat Oct 21 00:00:57 GMT 2017

Diagnostic Status: Warning Scientific Instruments: COS/NUV

Special Requirements: SCHED 100%; BETWEEN 26-JUL-2018:00:00:00 AND 26-AUG-2018:00:00:00

(Visit L2) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details. Diagnostics

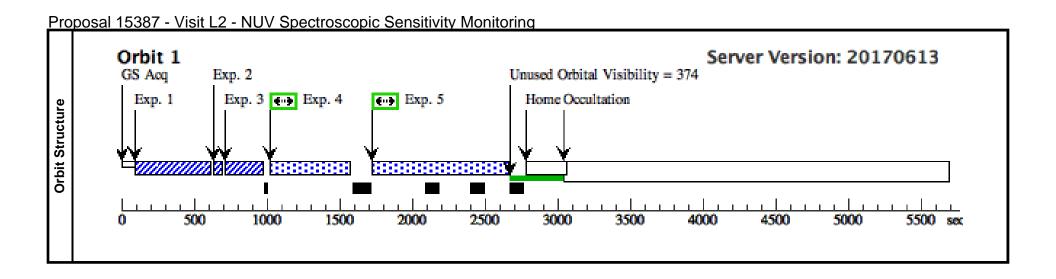
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
ets	(1)	WD1057+719	RA: 11 00 34.2200 (165.1425833d)	Proper Motion RA: -0.00973 sec of time/yr	V=14.68	Reference Frame: ICRS
۱ĕ			Dec: +71 38 2.99 (71.63416d)	Proper Motion Dec: -0.02 arcsec/yr		
<u>a</u> [Equinox: J2000	Epoch of Position: 2000.0		
l b	Comm	nents: HST FASTEX standard				

PM, coords from USNOB

GSC2 coords are 11:00:34.25, 71:38:02.97, 1997.19 epoch

Extended=NO

	#	Label Target (ETC Run)	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	G230L - AC (1) WD1057+719 Q/SEARCH (COS.sa.102 6871)	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767			0.7 Secs (0.7 Secs) [==>]	[1]
.es	2	G230L - AC (1) WD1057+719 Q/PEAKXD (COS.sa.102 6873)	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A				1.0 Secs (1 Secs) [==>]	[1]
Exposures	3	G230L - AC (1) WD1057+719 Q/PEAKD (COS.sa.102 6871)	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	CENTER=FLUX-W T-FLR; NUM-POS=9.0; STEP-SIZE=0.6			0.7 Secs (0.7 Secs) [==>]	[1]
	4	G230L - 263 (1) WD1057+719 5 A (COS.sp.102 6883)	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=48 0; FP-POS=3			540.0 Secs (540 Secs) [==>]	[1]
	5	G230L - 295 (1) WD1057+719 0 A (COS.sp.102 6886)	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=30 0; FP-POS=3			850.0 Secs (850 Secs) [==>]	[1]



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	10	ppodal 10001 Viole Wil 140 V Opoderodopio Conditivity Monitoring	
Γ			at Oct 21 00:00:57 GMT 2017
		Diagnostic Status: Warning	
ı	>	Scientific Instruments: COS/NUV	
1		Special Requirements: SCHED 100%: RETWEEN 20-IAN-2018-00:00:00 AND 20-FFR-2018:00:00:00	

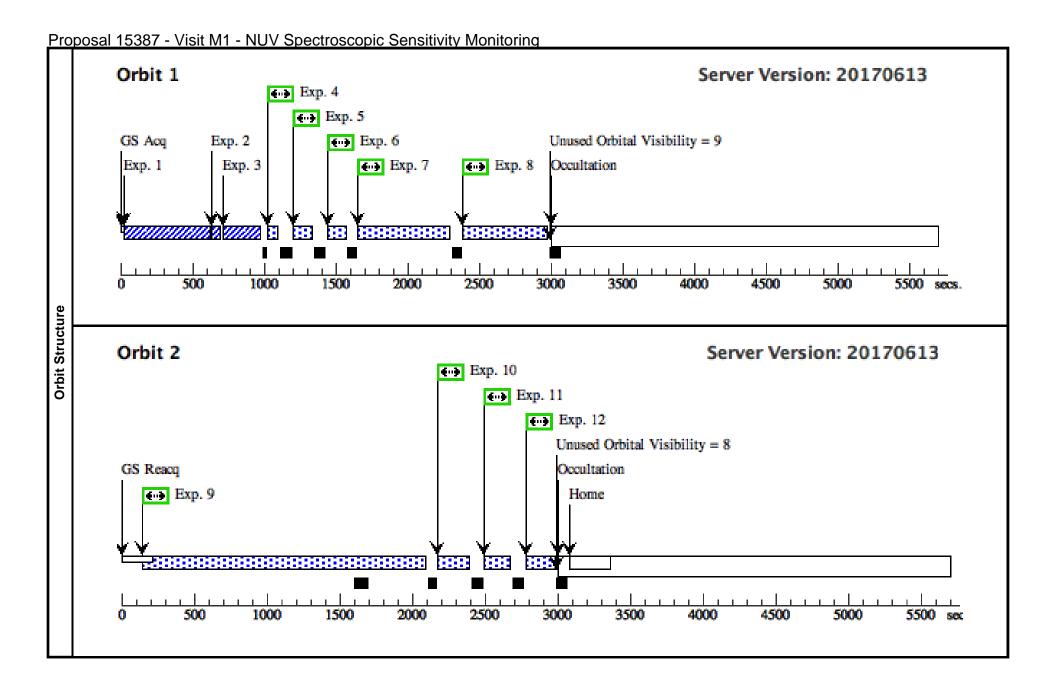
Oliginal (Visit M1) Videscription for description for descript

(Visit M1) Warning (Form): For the best data quality, it is strongly recommended that the maximum number of allowed FP-POS positions is used when observing at a given COS CENWAVE setting. See full description for details.

ţs	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
] g	(2)	G191B2B	RA: 05 05 30.6060 (76.3775250d)	Proper Motion RA: 0.00071 sec of time/yr	V=11.79	Reference Frame: ICRS
⊒			Dec: +52 49 52.74 (52.83132d)	Proper Motion Dec: -0.0907 arcsec/yr		
g			Equinox: J2000	Epoch of Position: 1991.25		
Fixe	Commer Extended	ts: coords, PM from Hippa d=NO	rcos			

Proposal 15387 - Visit M1 - NUV Spectroscopic Sensitivity Monitoring

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) G191B2B	COS/NUV, ACQ/SEARCH, PSA	G185M	STEP-SIZE=1.767;			1.0 Secs (1 Secs)	
	CQ/SEARC H (COS.sa.102 6877)			2010 A	SCAN-SIZE=3			[==>]	[1]
2	G185M - A	(2) G191B2B	COS/NUV, ACQ/PEAKXD, PSA	G185M				1.0 Secs (1 Secs)	
	CQ/PEAKX D (COS.sa.102 6879)			2010 A				[==>]	[1]
3		(2) G191B2B	COS/NUV, ACQ/PEAKD, PSA	G185M	STEP-SIZE=0.6;			1.0 Secs (1 Secs)	
	CQ/PEAKD (COS.sa.102 6877)			2010 A	NUM-POS=9.0			[==>]	[1]
4		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M	BUFFER-TIME=80			56 Secs (56 Secs)	
	10A (COS.sp.102 6887)			2010 A	FP-POS=3			[==>]	[1]
5	G185M - 19	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M	BUFFER-TIME=80	;		47.0 Secs (47 Secs)	
	21 A (COS.sp.102 6891)			1921 A	FP-POS=3			[==>]	[1]
6	G185M - 17	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M	BUFFER-TIME=80	;		41 Secs (41 Secs)	
.es	86A (COS.sp.102 6892)			1786 A	FP-POS=3			[==>]	[1]
	G285M - 28	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=10			520 Secs (520 Secs)	
Exposures []	50 A (COS.sp.103 0324)			2850 A	30; FP-POS=3			[==>]	[1]
Co	mments: For ET elease to accura	C release 25.2, SN ttely reflec the true	R predictions are significantly underesting trends. For now, the SNR that will actual	nated for G285M o	observations due to an in ufficient to perform TDS	accurate extrapola analysis.	ted TDS model. The	TDSTAB and throughput files will be update	ed in the 26.
8		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=89			505 Secs (505 Secs)	
	17 A (COS.sp.103 0325)			2617 A	2; FP-POS=3			[==>]	[1]
Co. 1 re	mments: For ET elease to accura	C release 25.2, SN ttely reflec the true	R predictions are significantly underesting trends. For now, the SNR that will actual	nated for G285M o	observations due to an in rufficient to perform TDS	accurate extrapola analysis.	ted TDS model. The	TDSTAB and throughput files will be update	ed in the 26.
9		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=13			1862 Secs (1862 Secs)	
	94 A (COS.sp.103 0326)			3094 A	78; FP-POS=3			[==>]	[2]
Co.	mments: For ET elease to accura	C release 25.2, SN tely reflec the true	R predictions are significantly underesting trends. For now, the SNR that will actual	nated for G285M o	observations due to an in afficient to perform TDS	accurate extrapola analysis.	ted TDS model. The	TDSTAB and throughput files will be update	ed in the 26.
10		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=15			101.0 Secs (101 Secs)	
	10 A (COS.sp.102 6905)			2410 A	7; FP-POS=3			[==>]	[2]
11		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=15			96 Secs (96 Secs)	
	06A (COS.sp.102 6906)			2306 A	6; FP-POS=3			[==>]	[2]
12		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=17			112.0 Secs (112 Secs)	
	86 A (COS.sp.102 6907)			2186 A	8; FP-POS=3			[==>]	[2]



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Proposal 15387, Visit M2	Sat Oct 21 00:00:57 GMT 2017
Diagnostic Status: Warning	
 Scientific Instruments: COS/NUV	
Special Requirements: SCHED 100%; BETWEEN 26-JUL-2018:00:00:00 AND 26-AUG-2018:00:00:00	

Diagnostics (Visit descri

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ţ	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
] g	(2)	G191B2B RA: 05 05 30.6060 (76.3775250d)		Proper Motion RA: 0.00071 sec of time/yr	V=11.79	Reference Frame: ICRS	
<u>a</u>			Dec: +52 49 52.74 (52.83132d)	Proper Motion Dec: -0.0907 arcsec/yr			
g			Equinox: J2000	Epoch of Position: 1991.25			
Fixe	Commen Extended	ats: coords, PM from Hippa d=NO	rcos				

Proposal 15387 - Visit M2 - NUV Spectroscopic Sensitivity Monitoring

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit			
1		(2) G191B2B	COS/NUV, ACQ/SEARCH, PSA	G185M	STEP-SIZE=1.767;			1.0 Secs (1 Secs)				
	CQ/SEARC H (COS.sa.102			2010 A	SCAN-SIZE=3			[==>]	[1]			
_	6877)	(2) C101P2P	COCAHUL ACO DE A KVD. DCA	C105M				100 (10)				
2	CQ/PEAKX	(2) G191B2B	COS/NUV, ACQ/PEAKXD, PSA	G185M 2010 A				$1.0 \operatorname{Secs} (1 \operatorname{Secs})$ $I = > I$				
	D (COS.sa.102 6879)			2010 A				[/]	[1]			
3	G185M - A	(2) G191B2B	COS/NUV, ACQ/PEAKD, PSA	G185M	STEP-SIZE=0.6;			1.0 Secs (1 Secs)				
	CQ/PEAKD (COS.sa.102 6877)			2010 A	NUM-POS=9.0			[==>]	[1]			
4	G185M - 20	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M	BUFFER-TIME=80	;		56 Secs (56 Secs)				
	10A (COS.sp.102 6887)			2010 A	FP-POS=3			[==>]	[1]			
5	G185M - 19	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M	BUFFER-TIME=80	• •		47.0 Secs (47 Secs)				
	21 A (COS.sp.102 6891)			1921 A	FP-POS=3			[==>]	[1]			
6	G185M - 17	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G185M	BUFFER-TIME=80	;		41 Secs (41 Secs)				
3	86A (COS.sp.102 6892)			1786 A	FP-POS=3			[==>]	[1]			
7	G285M - 28	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=10			520 Secs (520 Secs)				
7	50 A (COS.sp.103 0324)			2850 A	30; FP-POS=3			[==>]	[1]			
Cor	Comments: For ETC release 25.2, SNR predictions are significantly underestimated for G285M observations due to an inaccurate extrapolated TDS model. The TDSTAB and throughput files will be updated in the 26. 1 release to accurately reflec the true trends. For now, the SNR that will actually be achieved is sufficient to perform TDS analysis.											
8		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=89			505 Secs (505 Secs)				
	17 A (COS.sp.103 0325)			2617 A	2; FP-POS=3			[==>]	[1]			
	Comments: For ETC release 25.2, SNR predictions are significantly underestimated for G285M observations due to an inaccurate extrapolated TDS model. The TDSTAB and throughput files will be updated in the 26. I release to accurately reflec the true trends. For now, the SNR that will actually be achieved is sufficient to perform TDS analysis.											
9		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G285M	BUFFER-TIME=13			1862 Secs (1862 Secs)				
	94 A (COS.sp.103 0326)			3094 A	78; FP-POS=3			[==>]	[2]			
	Comments: For ETC release 25.2, SNR predictions are significantly underestimated for G285M observations due to an inaccurate extrapolated TDS model. The TDSTAB and throughput files will be updated in the 26. I release to accurately reflec the true trends. For now, the SNR that will actually be achieved is sufficient to perform TDS analysis.											
10		(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=15			101.0 Secs (101 Secs)				
	10 A (COS.sp.102 6905)			2410 A	7; FP-POS=3			[==>]	[2]			
11	G225M - 23	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=15			96 Secs (96 Secs)				
	06A (COS.sp.102 6906)			2306 A	6; FP-POS=3			[==>]	[2]			
10	G225M - 21	(2) G191B2B	COS/NUV, TIME-TAG, PSA	G225M	BUFFER-TIME=17			112.0 Secs (112 Secs)				
12	86 A				8;				1			

