



## 16538 - Cycle 29 COS NUV Wavelength Scale Monitor

Cycle: 29, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

### INVESTIGATORS

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### VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) HD-6655	COS/NUV	1	17-Jun-2021 16:07:24.0	yes

1 Total Orbits Used

### ABSTRACT

This program monitors the stability of the constant terms in the NUV dispersion solutions. To monitor for any changes, the program observes HD 6655 at selected cenwaves for the three NUV gratings that have seen use since Cycle 21. Via cross-correlation, spectra are compared to those obtained in previous iterations of the program and to STIS spectra obtained in-orbit.

### OBSERVING DESCRIPTION

To monitor the constant terms in the COS/NUV dispersion solutions, we take spectra with cenwaves 2635, 2950, and 3000 in G230L, cenwave 2217 in G225M, and cenwave 2010 in G185M. The previously monitored G285M grating was dropped from the program due to its declining sensitivity and lack of use since Cycle 21. All data are obtained at FP-POS 3. Due to past GS acquisition issues (e.g., Visit 02 of Cycle 22 program 13975; see HOPR 81649), we use an ACQ/SEARCH, ACQ/PEAKXD, and ACQ/PEAKD sequence. The available GS pairs need to be carefully vetted, as

Proposal 16538 (STScI Edit Number: 1, Created: Thursday, June 17, 2021 at 3:07:25 PM Eastern Standard Time) - Overview

optimum target centering is critical to this program. The proper motions were modified to reflect the latest GAIA measurements. Data from previous iterations of this program were used to update the ETC calculations for Cycle 25; exposure times were left the same for Cycle 29. Beginning with Cycle 25, this program was reduced to one visit from the previous two visits, since this was deemed sufficient for the monitoring. To maintain an interval of about 12 months between visits, the program will ideally be carried out in the September 2022 window. The schedulability is set to 40% to fit all the observations in one orbit.

Proposal 16538 - Visit 01 - Cycle 29 COS NUV Wavelength Scale Monitor

Thu Jun 17 20:07:25 GMT 2021

Visit	<b>Proposal 16538, Visit 01</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/NUV Special Requirements: SCHED 40%; BETWEEN 08-SEP-2022:00:00:00 AND 01-OCT-2022:00:00:00																											
	Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>HD-6655</td> <td>RA: 01 05 18.2073 (16.3258637d) Dec: -72 33 14.47 (-72.55402d) Equinox: J2000</td> <td>Proper Motion RA: 49.5 mas/yr Proper Motion Dec: -120.0 mas/yr Epoch of Position: 2000 Radial Velocity: 19.5 km/sec</td> <td>V=8.05+/-0.05</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td colspan="6"> <i>Comments: This object was generated by the target selector and retrieved from the SIMBAD database.</i>                      Category=STAR                      Description=[F3-F9]                      Extended=NO                 </td> </tr> </tbody> </table>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	HD-6655	RA: 01 05 18.2073 (16.3258637d) Dec: -72 33 14.47 (-72.55402d) Equinox: J2000	Proper Motion RA: 49.5 mas/yr Proper Motion Dec: -120.0 mas/yr Epoch of Position: 2000 Radial Velocity: 19.5 km/sec	V=8.05+/-0.05	Reference Frame: ICRS	<i>Comments: This object was generated by the target selector and retrieved from the SIMBAD database.</i> Category=STAR Description=[F3-F9] Extended=NO				
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Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																		
	1	(COS.sa.102 5837)	(1) HD-6655	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767; CENTER=FLUX-W T-FLR			1 Secs (1 Secs) [==>]	[1]																		
	2	(COS.sa.102 5839)	(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A	STRIPE=MEDIUM			1 Secs (1 Secs) [==>]	[1]																		
	3	(COS.sa.102 5837)	(1) HD-6655	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	NUM-POS=5; STEP-SIZE=1; CENTER=FLUX-W T-FLR			1 Secs (1 Secs) [==>]	[1]																		
	4	(COS.sp.102 5840)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=17 7; FP-POS=3			80 Secs (80 Secs) [==>]	[1]																		
	5	(COS.sp.102 5842)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=12 3; FP-POS=3			80 Secs (80 Secs) [==>]	[1]																		
	6	(COS.sp.102 5843)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 3000 A	BUFFER-TIME=12 4; FP-POS=3			80 Secs (80 Secs) [==>]	[1]																		
	7	(COS.sp.102 5846)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G225M 2217 A	BUFFER-TIME=33 0; FP-POS=3			440 Secs (440 Secs) [==>]	[1]																		
	8	(COS.sp.102 5857)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G185M 2010 A	BUFFER-TIME=75 0; FP-POS=3			860 Secs (860 Secs) [==>]	[1]																		

