



15779 - Cycle 27 COS NUV Wavelength Scale Monitor

Cycle: 27, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. William J. Fischer (PI) (Contact)	Space Telescope Science Institute	wfischer@stsci.edu
Dr. Bethan Lesley James (CoI) (ESA Member) (Contact)	Space Telescope Science Institute - ESA	bjames@stsci.edu

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	16-Sep-2020 16:02:03.0	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 in Cycle 27, we continue the approach of Cycle 26 program 15541. This includes taking spectra with the 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 optimum target centering is critical to this program. The proper

Proposal 15779 (STScI Edit Number: 3, Created: Wednesday, September 16, 2020 at 3:02:04 PM Eastern Standard Time) - Overview
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 27. 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 window that spans September and October 2020. The schedulability is set to 40% to fit all the observations in one orbit.

Proposal 15779 - Visit 01 - Cycle 27 COS NUV Wavelength Scale Monitor

Wed Sep 16 20:02:04 GMT 2020

Visit	Proposal 15779, Visit 01, implementation Diagnostic Status: No Diagnostics Scientific Instruments: COS/NUV Special Requirements: SCHED 40%; BETWEEN 15-SEP-2020:00:00:00 AND 01-NOV-2020:00:00:00 Comments: The window in September/October 2020 is preferred to maintain a pattern of about 12 months between visits. The schedulability is set to 40% to fit all the observations in one orbit.				

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> </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
	#	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								
Comments: This object was generated by the target selector and retrieved from the SIMBAD database. Category=STAR Description=[F3-F9] Extended=NO													

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	GS ACQ SCENARI O BASE1BE		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			800 Secs (800 Secs) [==>]	[1]

