17937 - Cycle 33 COS NUV Wavelength Scale Monitor

Cycle: 33, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

INVESTIGATORS

Name	*Institution*
Dr. David M. French (PI) (Contact)	**Space Telescope Science Institute**
Jacqueline Hernandez (CoI) (Contact)	Space Telescope Science Institute
Dr. Leonardo Dos Santos (CoI) (Contact)	Space Telescope Science Institute
Dr. Svea S Hernandez (CoI) (ESA Member) (Contact)	Space Telescope Science Institute - ESA - JWST

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HD-6655	COS/NUV	1	10-Nov-2026 18:00:14.0	yes
51	(1) HD-6655	COS/NUV	1	10-Nov-2026 18:00:15.0	yes

2 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 optimum target centering is critical to this program. The proper motions were modified to reflect the latest GAIA measurements. Beginning with Cycle 25, this program was reduced to one visit from the previous two visits, since this was deemed sufficient for the monitoring. Data from previous iterations of this program were used to update the ETC calculations for Cycle 25; exposure times were initially left the same for Cycle 31. During Cycle 31 June 2024 this program was edited for compatibility with Reduced Gyro Mode operations. The schedulability was raised from 40% to 70%, and all 5 exposure times were reduced to accomodate the resulting 198s of overrun. New ETC calculations have been added, and the old Cycle 25 ETC runs are saved in the exposure comment boxes. To maintain an interval of about 12 months between visits, the program will ideally be carried out in the September-October 2026 window. This Cycle 33 program is identical to the Cycle 32 version.

Proposal 17937 - Visit 01 - Cycle 33 COS NUV Wavelength Scale Monitor

Visit

Proposal 17937, Visit 01, failed

Tue Nov 10 23:00:16 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: SCHED 70%; BETWEEN 01-SEP-2026:00:00:00 AND 31-OCT-2026:00:00:00

Diagnostics

(Visit 01) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

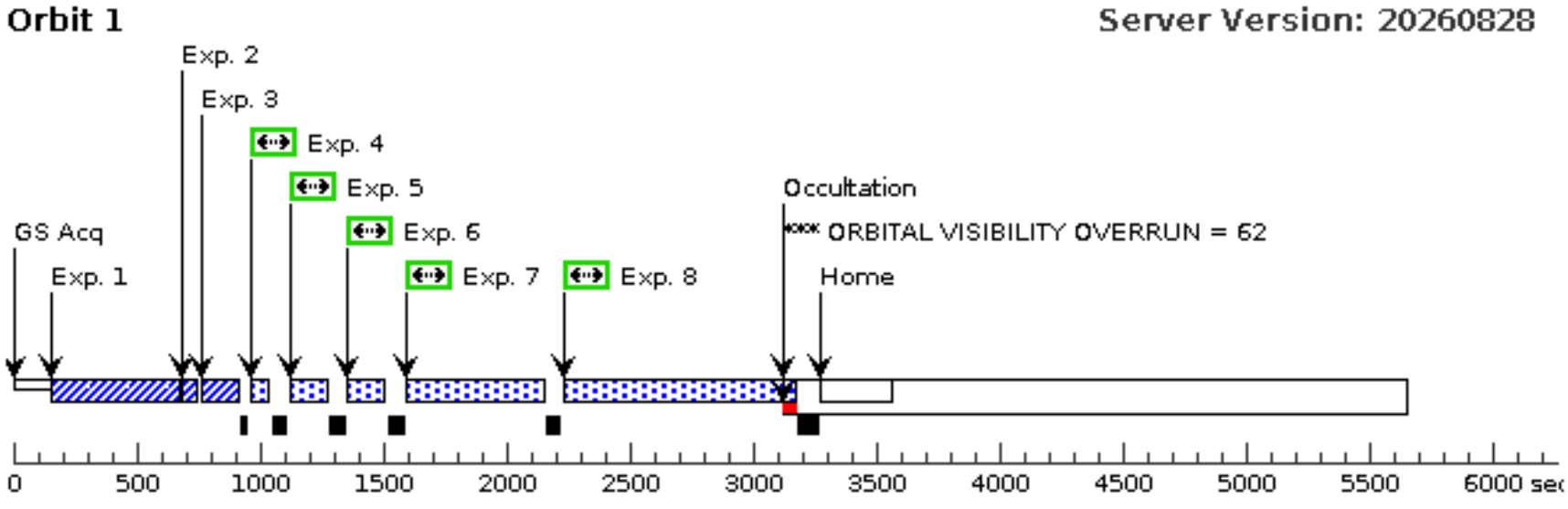
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-6655	RA: 01 05 18.2073 (16.3258637d) Dec: -72 33 14.47 (-72.55402d) Equinox: J2000	Proper Motion RA: 49.5 mas/yr Proper Motion Dec: -120.0 mas/yr Epoch of Position: 2000 Radial Velocity: 19.5 km/sec	V=8.05+/-0.05	Reference 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	ACQ/SEARCH (COS.sa.1025837)	(1) HD-6655	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767; CENTER=FLUX-WT-FLR			1 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ/PEAKXD (COS.sa.1025839)	(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A	STRIPE=MEDIUM			1 Secs (1 Secs) *[==>]*	***[1]***
3	ACQ/PEAKD (COS.sa.1025837)	(1) HD-6655	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	NUM-POS=5; STEP-SIZE=1; CENTER=FLUX-WT-FLR			1 Secs (1 Secs) *[==>]*	***[1]***
4	G230L/2635 (COS.sp.1925946)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=171; FP-POS=3			60 Secs (60 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025840									
5	G230L/2950 (COS.sp.1925954)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=120; FP-POS=3			60 Secs (60 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025842									
6	G230L/3000 (COS.sp.1925941)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 3000 A	BUFFER-TIME=121; FP-POS=3			60 Secs (60 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025843									
7	G225M/2217 (COS.sp.1925942)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G225M 2217 A	BUFFER-TIME=912; FP-POS=3			400 Secs (400 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025846									
8	G185M/2010 (COS.sp.1925956)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G185M 2010 A	BUFFER-TIME=1020; FP-POS=3			780 Secs (780 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025857									

Orbit Structure



Proposal 17937 - Visit 51 - Cycle 33 COS NUV Wavelength Scale Monitor

Visit

Proposal 17937, Visit 51, scheduling Tue Nov 10 23:00:16 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/NUV

Special Requirements: SCHED 70%; BETWEEN 01-SEP-2027:00:00:00 AND 31-OCT-2027:00:00:00

Comments: HOPR REpeeat of visit 01

Diagnostics

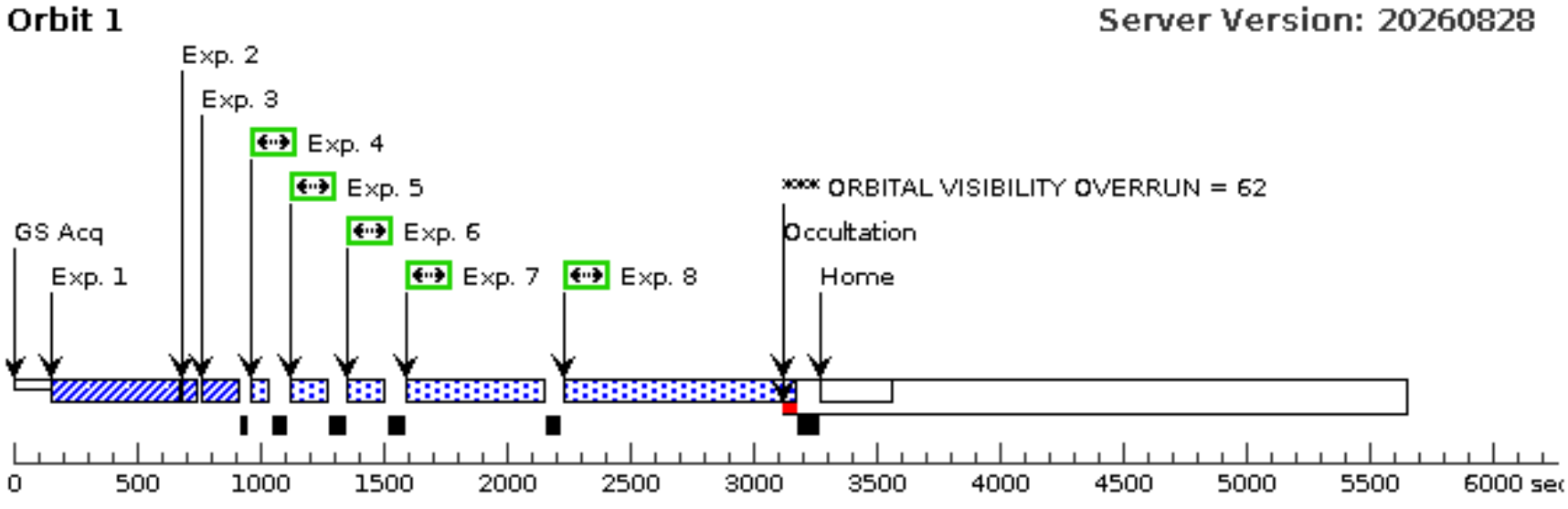
(Visit 51) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-6655	RA: 01 05 18.2073 (16.3258637d)	Proper Motion RA: 49.5 mas/yr	V=8.05+/-0.05	Reference Frame: ICRS
		Dec: -72 33 14.47 (-72.55402d)	Proper Motion Dec: -120.0 mas/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.
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	ACQ/SEARCH (COS.sa.1025837)	(1) HD-6655	COS/NUV, ACQ/SEARCH, PSA	G230L 2635 A	SCAN-SIZE=3; STEP-SIZE=1.767; CENTER=FLUX-WT-FLR			1 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ/PEAKXD (COS.sa.1025839)	(1) HD-6655	COS/NUV, ACQ/PEAKXD, PSA	G230L 2635 A	STRIPE=MEDIUM			1 Secs (1 Secs) *[==>]*	***[1]***
3	ACQ/PEAKD (COS.sa.1025837)	(1) HD-6655	COS/NUV, ACQ/PEAKD, PSA	G230L 2635 A	NUM-POS=5; STEP-SIZE=1; CENTER=FLUX-WT-FLR			1 Secs (1 Secs) *[==>]*	***[1]***
4	G230L/2635 (COS.sp.1925946)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 2635 A	BUFFER-TIME=171; FP-POS=3			60 Secs (60 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025840									
5	G230L/2950 (COS.sp.1925954)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=120; FP-POS=3			60 Secs (60 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025842									
6	G230L/3000 (COS.sp.1925941)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G230L 3000 A	BUFFER-TIME=121; FP-POS=3			60 Secs (60 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025843									
7	G225M/2217 (COS.sp.1925942)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G225M 2217 A	BUFFER-TIME=912; FP-POS=3			400 Secs (400 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025846									
8	G185M/2010 (COS.sp.1925956)	(1) HD-6655	COS/NUV, TIME-TAG, PSA	G185M 2010 A	BUFFER-TIME=1020; FP-POS=3			780 Secs (780 Secs) *[==>]*	***[1]***
Comments: Pre-RGM ETC: COS.sp.1025857									

Orbit Structure