17453 - Activity at the Edge

Cycle: 31, Proposal Category: GO

(UV Initiative)

(Availability Mode: AVAILABLE)

INVESTIGATORS

Name	*Institution*
Dr. Thomas R. Ayres (PI) (Contact)	**University of Colorado at Boulder**

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HD-23975	COS/FUV COS/NUV	1	11-Jun-2024 15:02:48.0	yes
02	(2) HD-23352	COS/FUV COS/NUV	1	11-Jun-2024 15:02:49.0	yes
03	(3) HIP-16753	COS/FUV COS/NUV	1	11-Jun-2024 15:02:50.0	yes
04	(4) HD-23269	COS/FUV COS/NUV	1	11-Jun-2024 15:02:51.0	yes
05	(5) HD-282973	COS/FUV COS/NUV	1	11-Jun-2024 15:02:51.0	yes
55	(5) HD-282973	COS/FUV COS/NUV	1	11-Jun-2024 15:02:52.0	yes
06	(6) BD+21D504	COS/FUV COS/NUV	1	11-Jun-2024 15:02:53.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
07	(7) HD-282971	COS/FUV COS/NUV	1	11-Jun-2024 15:02:53.0	yes
08	(8) BD+23D551	COS/FUV COS/NUV	1	11-Jun-2024 15:02:54.0	yes
09	(9) BD+22D521	COS/FUV COS/NUV	1	11-Jun-2024 15:02:54.0	yes
10	(10) BD+21D516	COS/FUV COS/NUV	1	11-Jun-2024 15:02:55.0	yes
11	(11) BD+22D574	COS/FUV COS/NUV	1	11-Jun-2024 15:02:56.0	yes
12	(12) HD-283067	COS/FUV COS/NUV	1	11-Jun-2024 15:02:57.0	yes
13	(13) TYC-1800-2144-1	COS/FUV COS/NUV	1	11-Jun-2024 15:02:57.0	yes
14	(14) BD+22D548	COS/FUV COS/NUV	1	11-Jun-2024 15:02:58.0	yes
15	(15) HD-282972	COS/FUV COS/NUV	1	11-Jun-2024 15:02:59.0	yes
16	(16) BD+23D527	COS/FUV COS/NUV	1	11-Jun-2024 15:02:59.0	yes
17	(17) HD-282963	COS/FUV COS/NUV	1	11-Jun-2024 15:03:00.0	yes

18 Total Orbits Used

ABSTRACT

A central goal of cool-star astronomy is to link the high-energy FUV+X-ray ("XUV") luminosity -- which among other things can affect the local stellar environs, especially orbiting exoplanets -- to properties of the "dynamo" that controls the generation of magnetic flux deep inside spinning, convective stars. In the 1980s it was discovered that the ratio of the stellar rotation period to a convective turnover time could unify the behavior of

Ca II HK chromospheric fluxes broadly over the FGK spectral types. This "Rossby number" plays a fundamental role in terrestrial and stellar dynamo theories, so the unification was promising. A more recent attempt to achieve a similar synthesis at high energies, more closely connected to concentrated surface magnetic activity, met with some success for the early- to mid-G types, but theoretical convective turnover times showed a sharper drop in the early-F types than empirical estimates. That "edge" occurs where stellar convection zones are rapidly thinning toward the warmer spectral types, a challenge to theory. Unfortunately, the existing sample of empirical turnover times has a conspicuous gap in the F types, so the intermediate behavior is unknown. This gap can be filled by new HST/COS FUV (and Chandra X-ray) observations of 17 carefully selected F5-G1 dwarfs in the nearby Pleiades cluster; which have accurate photometric rotation periods, common age and similar composition. Validation of the Rossby framework with this unique stellar cohort not only could strengthen the theory; but also ultimately allow "one-stop shopping" to estimate XUV luminosities of cool stars beyond the range of current high-energy space observatories.

OBSERVING DESCRIPTION

To test whether the Rossby formalism can successfully bridge the F/G break illustrated in the original proposal, one needs a collection of single dwarf stars that have similar fundamental properties, such as age and chemical composition; and differ mainly in surface temperature, which controls the convective properties and thus the turnover time. (The restriction to dwarfs aligns with the better developed state of solar dynamo theories.) The stars should have well determined rotation periods, ideally photometric (avoiding the orientation ambiguity of spectroscopic velocities); and be accessible in both the FUV and X-rays, to construct the crucial XUV metric. Such homogenous stellar samples can be found in galactic clusters. The Pleiades, in particular, is close enough (136 pc) to have F and G dwarfs that can be captured by HST in the FUV and Chandra (or XMM-Newton) at X-ray energies. (The Hyades cluster would be another option, but there are too few suitable F to early-G candidates. The Hyades, nevertheless, is a better for the fainter, cool K dwarfs, the subject of a related joint Chandra/HST Rossby project.) Further, uniformly measured photometric rotational periods, from the ground and space, are available for many of the Pleiades dwarfs; while Gaia DR3 provides accurate distances, colors, broad-band visual magnitudes, and radial velocities (RV). Variances of the Gaia RVs over the numerous sky scans can reveal spectroscopic binaries. After careful consideration of potential candidates from a recent Pleiades survey catalog, 17 were found suitable. These late-type dwarfs have PROT= 1.8-3.8 d, and appear to be single by virtue of H-R diagram position and small Gaia RV dispersions.

As alluded previously, the principal stellar activity metric to compare to the Rossby number is the "XUV hybrid flux," intended to document the main radiative losses of the magnetically energized outer atmosphere; a proxy related to the delivery rate of concentrated magnetic flux into the stellar surface layers (ultimately connected to the dynamo itself). The FUV not only contributes specific bright emission lines -- from species like C III, Si III, N V, Si IV, and C IV -- but also provides surrogates for contributions by the important, but unseen, EUV features, such as He II 30 nm

(scales with C IV 155 nm) and C III 97 nm (scales with C III 117 nm). Consequently, FUV spectra are a crucial piece of the combined XUV flux.

Cosmic Origins Spectrograph was specifically designed for FUV spectroscopy of faint objects. COS can achieve full-coverage FUV spectra of late-type stars (i.e., C III 117 nm to He II 164 nm) by combining two medium-resolution settings, G130M-1222 and G160M-1533 (low-resolution grating COS G140L misses important Si III 120 nm and N V 123+124 nm). The G130M-1222 detector gap excludes H I 121 nm Ly-alpha, so there are no safety concerns. This simple combination is optimum for the faint Pleiades dwarfs. The two COS CENWAVEs can be accommodated in a single orbit per star. The NUV imaging target acquisition is appropriate for the Pleiades V-magnitude range. Time-Tag is the default exposure mode, and is helpful to identify any transient flare events (expected to be rare).

The NUV imaging target acquisition can be done with Mirror-A and the BOA for targets 1-12, with exposures of 13-24 s. The fainter, cooler targets 13-17 can be done with Mirror-B and the PSA, with an exposure of 2 s.

In one orbit, accounting for overheads, about 1 ks of exposure is available for each CENWAVE (2 ks total in the overlap between them).

These targets are faint in the FUV, so it is advantageous to utilize only 2 of the 4 FP-POS splits for each setting. FP-POS 1+2 are used with M-1222 to capture Si III 120 nm; FP-POS 3+4 are used with M-1533 to fully capture the Fe II 134 nm + Fe XXI 135 nm region. Restricting the FP-POSs yields 25% more exposure time: the S/N will not be high enough to make best use of the fixed-pattern mitigation delivered by the full complement of FP-POS splits.

The M-1533 exposures can be done at Lifetime Position 4 (instead of LP6 with its high-overhead lamp-flash calibrations) because the duration of each visit is a single orbit.

Visit

Proposal 17453, Visit 01, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 01) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

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

Fixed Targets

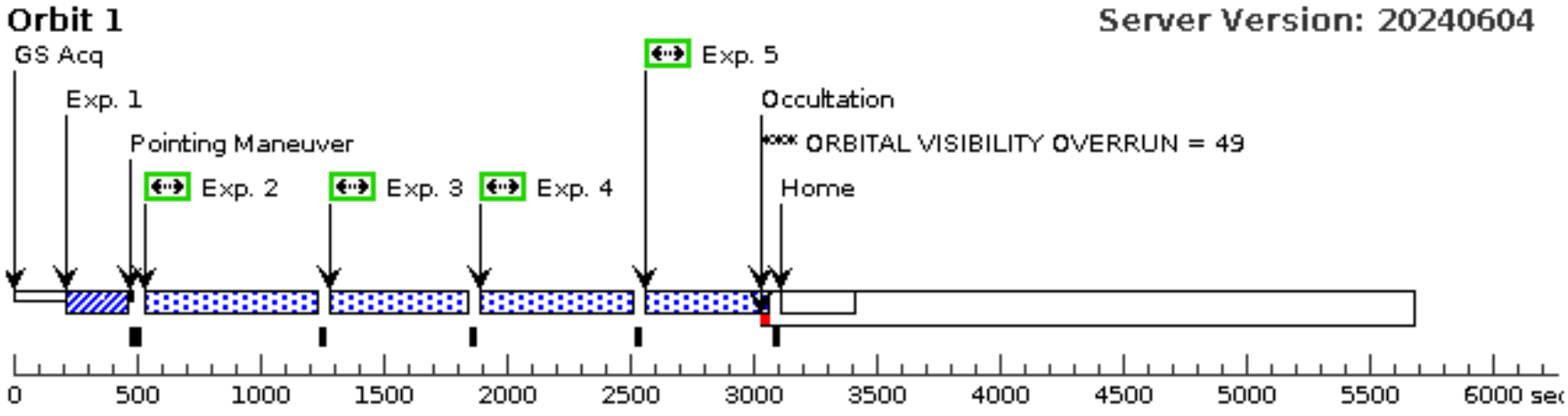
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-23975	RA: 03 50 17.6727 (57.5736362d) Dec: +25 22 46.44 (25.37957d) Equinox: J2000	Proper Motion RA: +0.019348 arcsec/yr Proper Motion Dec: -0.045860 arcsec/yr Parallax: 0.0072394" Epoch of Position: 2000 Radial Velocity: +5.5 km/sec	V=9.7+/-0.2 F5V (from Teff=6415), (BP-RP)=0.679, G=9.53, RV=5.5+/-0.5 kps, Prot=1.9 d	Reference Frame: ICRS

Comments:
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.ta.1887733)	(1) HD-23975	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				13.0 Secs (13 Secs) *[==>]*	*[1]*
Comments: Castelli-Kurucz Models F5V 6500 4.0; Renormalized to vegamag = 10.0 in filter Johnson/V									
2	(COS.sp.1887727)	(1) HD-23975	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			507 Secs (507 Secs) *[==>]*	*[1]*
3	(COS.sp.1887727)	(1) HD-23975	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			507 Secs (507 Secs) *[==>]*	*[1]*
4	(COS.sp.1887728)	(1) HD-23975	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			450 Secs (450 Secs) *[==>]*	*[1]*
5	(COS.sp.1887728)	(1) HD-23975	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			450 Secs (450 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 17453, Visit 02, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 02) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 02) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

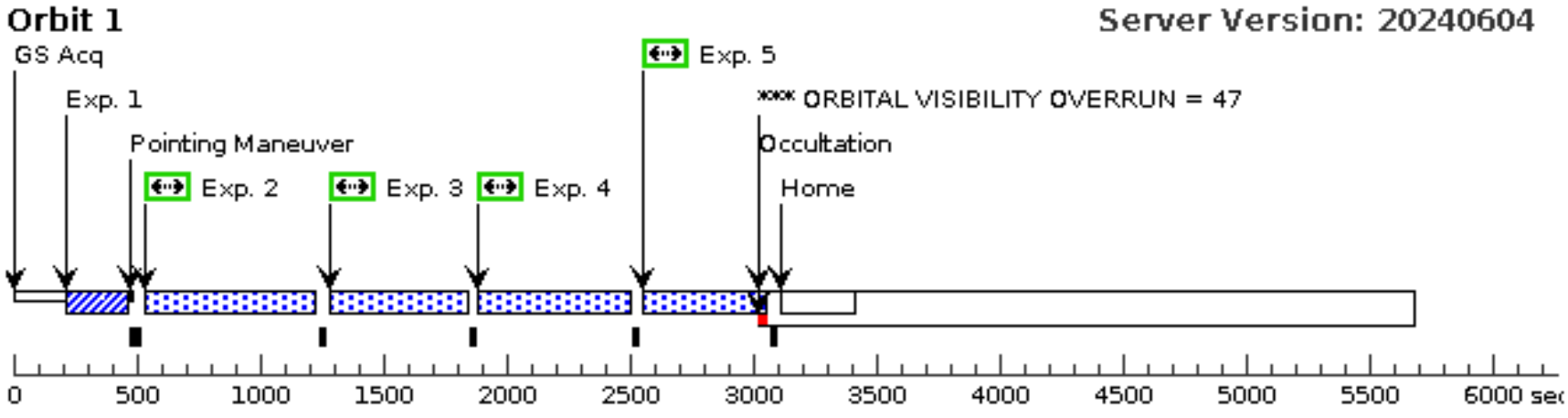
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	HD-23352	RA: 03 45 24.1269 (56.3505288d) Dec: +24 53 9.53 (24.88598d) Equinox: J2000	Proper Motion RA: +0.020543 arcsec/yr Proper Motion Dec: -0.045570 arcsec/yr Parallax: 0.0073842" Epoch of Position: 2000 Radial Velocity: +6.5 km/sec	V=9.8+/-0.2 F5V (from Teff=6400), (BP-RP)=0.684, G=9.57, RV=6.5+/-0.6 kps, Prot=1.8 d, fX=1.0e-13	Reference Frame: ICRS

Comments:
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.ta.1887733)	(2) HD-23352	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				13.0 Secs (13 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models F5V 6500 4.0; Renormalized to vegamag = 10.0 in filter Johnson/V									
2	(COS.sp.1887727)	(2) HD-23352	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(2) HD-23352	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(2) HD-23352	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(2) HD-23352	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 03, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 03) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

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

Fixed Targets

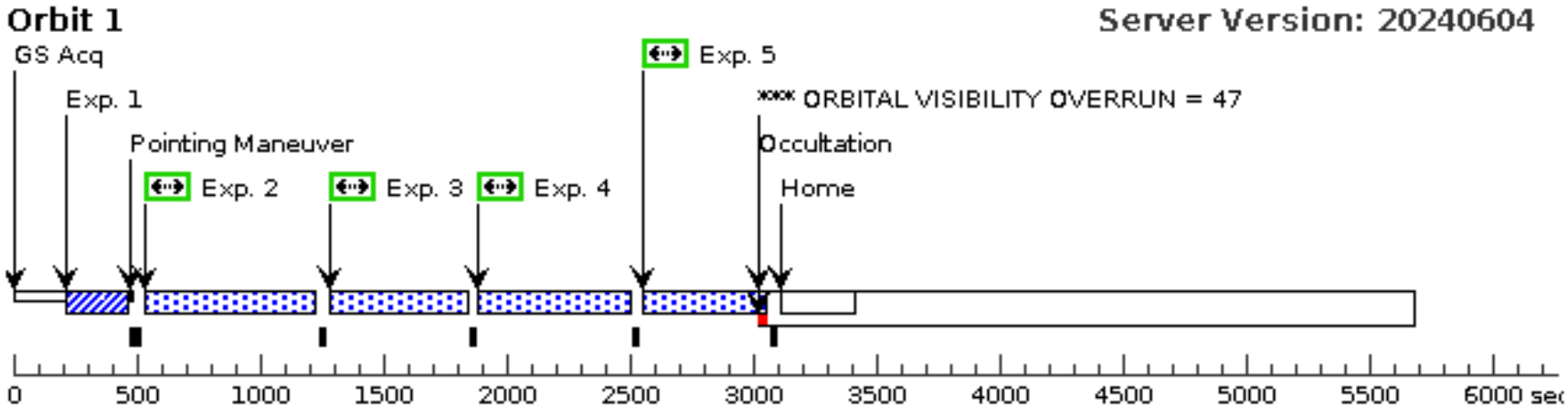
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	HIP-16753	RA: 03 35 31.6940 (53.8820583d) Dec: +22 49 24.91 (22.82359d) Equinox: J2000	Proper Motion RA: +0.021394 arcsec/yr Proper Motion Dec: -0.045467 arcsec/yr Parallax: 0.0075327" Epoch of Position: 2000 Radial Velocity: +5.3 km/sec	V=9.9+/-0.2 F6V (from Teff=6335), (BP-RP)=0.701, G=9.73, RV=5.3+/-0.4 kps, Prot=2.8 d	Reference Frame: ICRS

Comments:
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.ta.1887733)	(3) HIP-16753	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				13.0 Secs (13 Secs) *[==>]*	*[1]*
Comments: Castelli-Kurucz Models F5V 6500 4.0; Renormalized to vegamag = 10.0 in filter Johnson/V									
2	(COS.sp.1887727)	(3) HIP-16753	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	*[1]*
3	(COS.sp.1887727)	(3) HIP-16753	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	*[1]*
4	(COS.sp.1887728)	(3) HIP-16753	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	*[1]*
5	(COS.sp.1887728)	(3) HIP-16753	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 17453, Visit 04, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 04) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 04) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

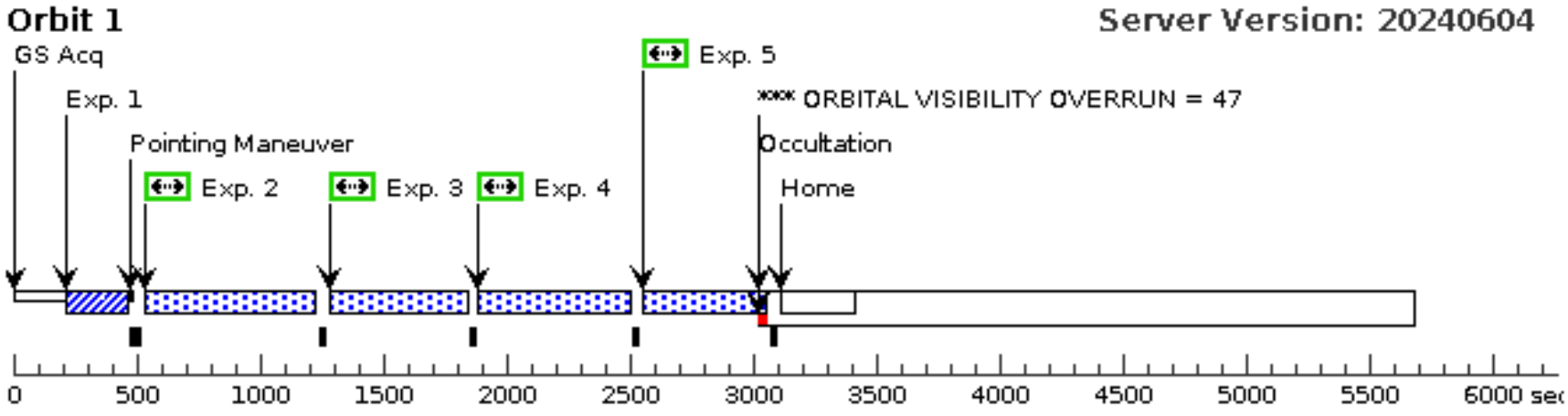
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	HD-23269	RA: 03 44 40.7576 (56.1698233d) Dec: +24 49 6.73 (24.81854d) Equinox: J2000	Proper Motion RA: +0.020239 arcsec/yr Proper Motion Dec: -0.045446 arcsec/yr Parallax: 0.0074895" Epoch of Position: 2000 Radial Velocity: +4.3 km/sec	V=10.0+/-0.2 F6V (from Teff=6325), (BP-RP)=0.706, G=9.72, RV=4.3+/-0.7 kps, Prot=1.9 d, fX=1.7e-13	Reference Frame: ICRS

Comments:
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.ta.1887733)	(4) HD-23269	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				13.0 Secs (13 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models F5V 6500 4.0; Renormalized to vegamag = 10.0 in filter Johnson/V									
2	(COS.sp.1887727)	(4) HD-23269	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(4) HD-23269	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(4) HD-23269	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(4) HD-23269	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 05, failed

Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 05) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 05) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

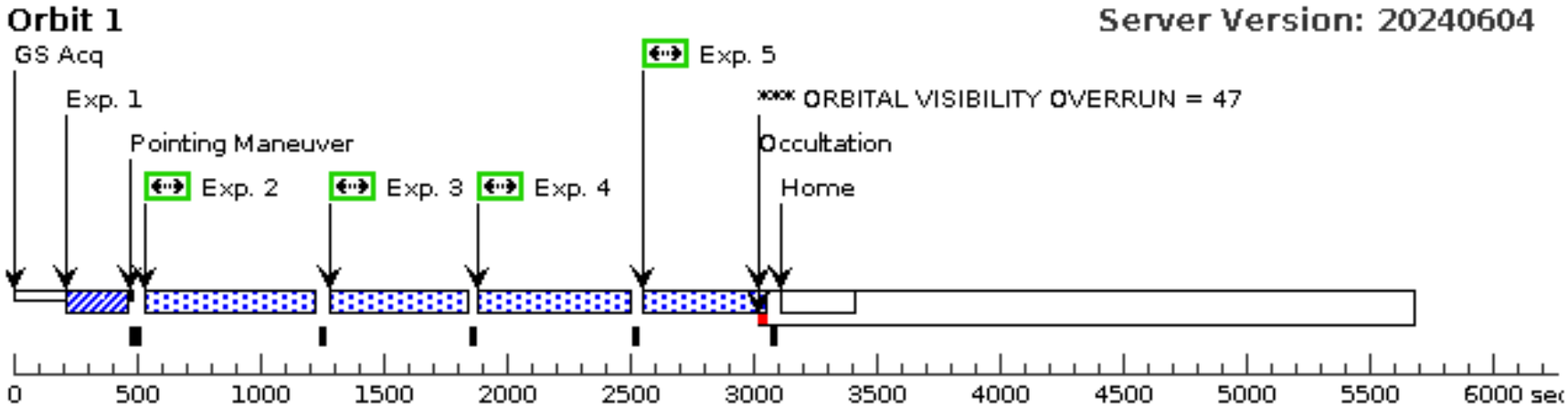
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	HD-282973	RA: 03 47 52.5260 (56.9688583d) Dec: +23 56 28.43 (23.94123d) Equinox: J2000	Proper Motion RA: +0.019685 arcsec/yr Proper Motion Dec: -0.046394 arcsec/yr Parallax: 0.0073763" Epoch of Position: 2000 Radial Velocity: +5.6 km/sec	V=9.9+/-0.2 F6V (from Teff=6325), (BP-RP)=0.708, G=9.76, RV=5.6+/-0.3 kps, Prot=2.8 d, fX=0.8e-13	Reference Frame: ICRS

Comments:
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.ta.1887733)	(5) HD-282973	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				13.0 Secs (13 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models F5V 6500 4.0; Renormalized to vegamag = 10.0 in filter Johnson/V									
2	(COS.sp.1887727)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 55, implementation Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: HOPR Repeat of visit 05

Diagnostics

(Visit 55) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

Fixed Targets

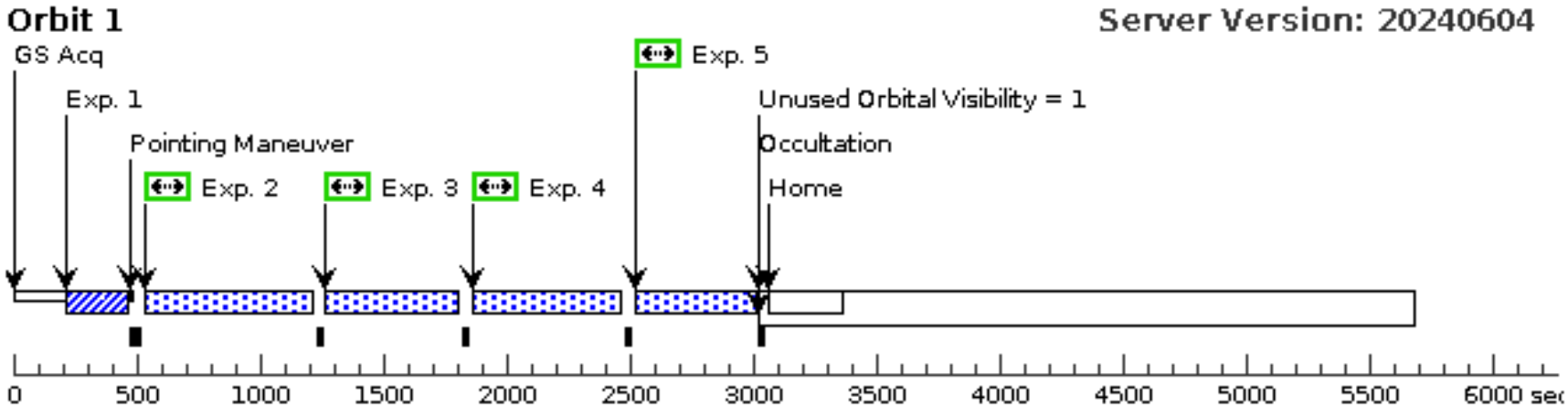
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	HD-282973	RA: 03 47 52.5260 (56.9688583d) Dec: +23 56 28.43 (23.94123d) Equinox: J2000	Proper Motion RA: +0.019685 arcsec/yr Proper Motion Dec: -0.046394 arcsec/yr Parallax: 0.0073763" Epoch of Position: 2000 Radial Velocity: +5.6 km/sec	V=9.9+/-0.2 F6V (from Teff=6325), (BP-RP)=0.708, G=9.76, RV=5.6+/-0.3 kps, Prot=2.8 d, fX=0.8e-13	Reference Frame: ICRS

Comments:
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.ta.1887733)	(5) HD-282973	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				13.0 Secs (13 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models F5V 6500 4.0; Renormalized to vegamag = 10.0 in filter Johnson/V									
2	(COS.sp.1887727)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			491 Secs (491 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			491 Secs (491 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			439 Secs (439 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(5) HD-282973	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			439 Secs (439 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 06, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 06) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 06) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

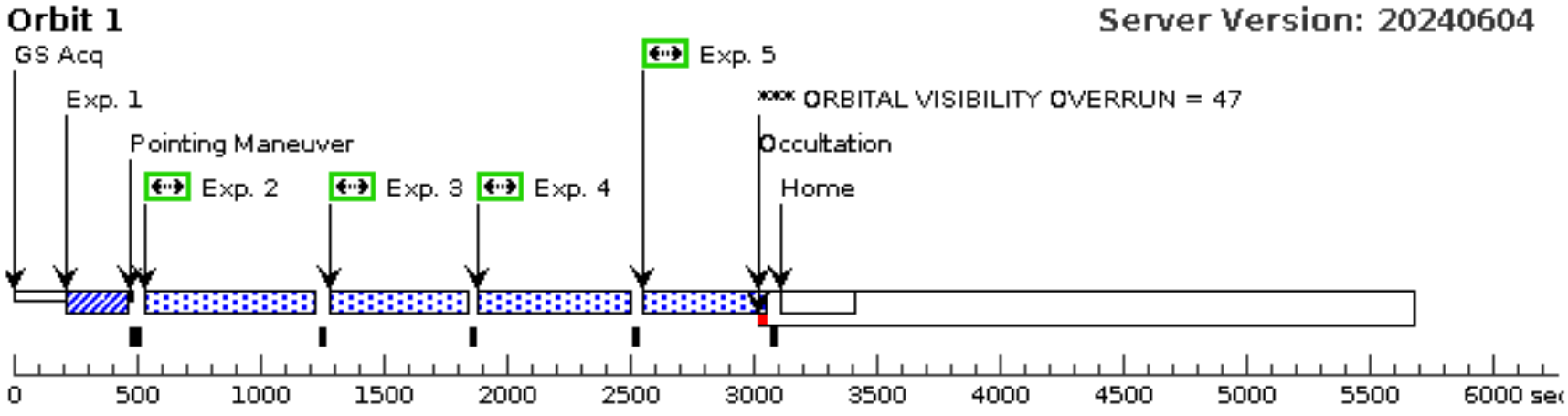
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	BD+21D504	RA: 03 42 23.9948 (55.5999783d) Dec: +21 28 24.57 (21.47349d) Equinox: J2000	Proper Motion RA: +0.021141 arcsec/yr Proper Motion Dec: -0.047936 arcsec/yr Parallax: 0.0078444" Epoch of Position: 2000 Radial Velocity: +7.0 km/sec	V=9.8+/-0.2 F6V (from Teff=6310), (BP-RP)=0.711, G=9.71, RV=7.0+/-0.5 kps, Prot=2.4 d	Reference Frame: ICRS

Comments:
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.ta.1887733)	(6) BD+21D504	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				13.0 Secs (13 Secs) *[==>]*	*[1]*
Comments: Castelli-Kurucz Models F5V 6500 4.0; Renormalized to vegamag = 10.0 in filter Johnson/V									
2	(COS.sp.1887727)	(6) BD+21D504	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	*[1]*
3	(COS.sp.1887727)	(6) BD+21D504	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			503 Secs (503 Secs) *[==>]*	*[1]*
4	(COS.sp.1887728)	(6) BD+21D504	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	*[1]*
5	(COS.sp.1887728)	(6) BD+21D504	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			451 Secs (451 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 17453, Visit 07, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 07) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 07) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

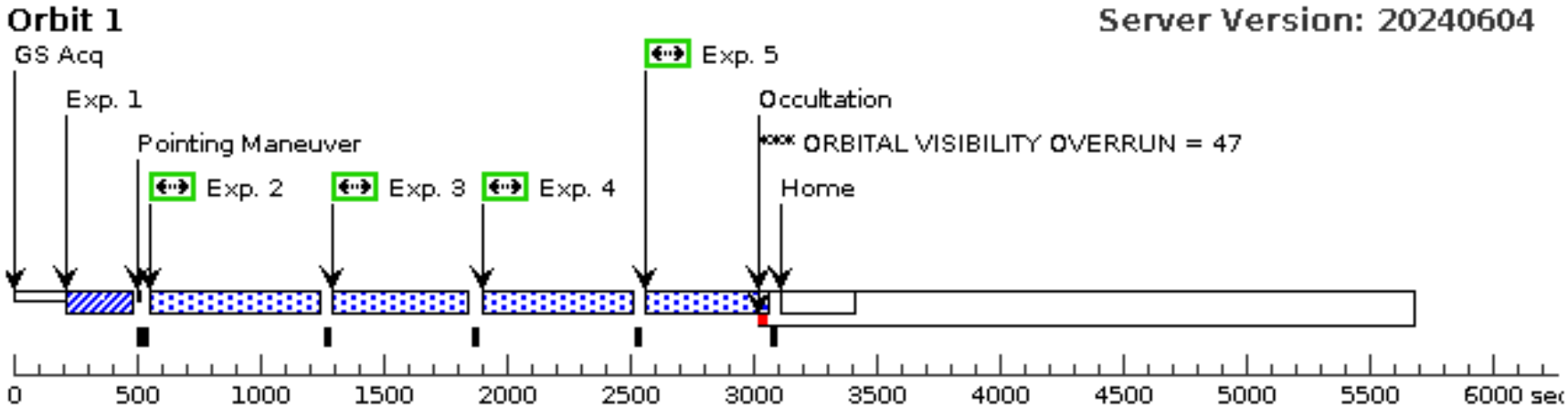
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HD-282971	RA: 03 48 26.1648 (57.1090200d) Dec: +24 02 54.20 (24.04839d) Equinox: J2000	Proper Motion RA: +0.019673 arcsec/yr Proper Motion Dec: -0.046258 arcsec/yr Parallax: 0.0074191" Epoch of Position: 2000 Radial Velocity: +4.8 km/sec	V=10.2+/-0.2 F7V (from Teff=6230), (BP-RP)=0.734, G=9.90, RV=4.8+/-0.4 kps, Prot=2.5 d	Reference Frame: ICRS

Comments:
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.ta.1887748)	(7) HD-282971	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				24.0 Secs (24 Secs) *[==>]*	*[1]*
Comments: Castelli-Kurucz Models F8V 6250 4.0; Renormalized to vegamag = 10.4 in filter Johnson/V									
2	(COS.sp.1887727)	(7) HD-282971	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	*[1]*
3	(COS.sp.1887727)	(7) HD-282971	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.1887728)	(7) HD-282971	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	*[1]*
5	(COS.sp.1887728)	(7) HD-282971	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 17453, Visit 08, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 08) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 08) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

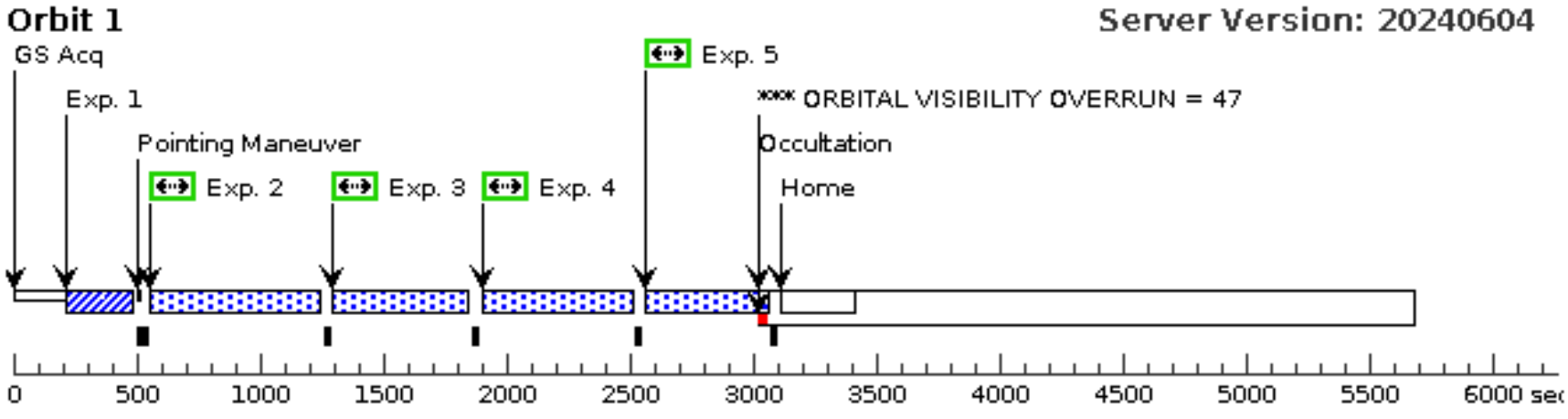
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	BD+23D551	RA: 03 48 16.9039 (57.0704329d) Dec: +23 38 12.42 (23.63678d) Equinox: J2000	Proper Motion RA: +0.018292 arcsec/yr Proper Motion Dec: -0.044757 arcsec/yr Parallax: 0.0071944" Epoch of Position: 2000 Radial Velocity: +6.5 km/sec	V=10.1+/-0.2 F8V (from Teff=6220), (BP-RP)=0.740, G=9.99, RV=6.5+/-0.4 kps, Prot=2.5 d, fX=0.6e-13	Reference Frame: ICRS

Comments:
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.ta.1887748)	(8) BD+23D551	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				24.0 Secs (24 Secs) *[==>]*	***[1]***
Comments: Castelli-Kurucz Models F8V 6250 4.0; Renormalized to vegamag = 10.4 in filter Johnson/V									
2	(COS.sp.1887727)	(8) BD+23D551	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	***[1]***
3	(COS.sp.1887727)	(8) BD+23D551	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	***[1]***
4	(COS.sp.1887728)	(8) BD+23D551	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	***[1]***
5	(COS.sp.1887728)	(8) BD+23D551	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 09, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 09) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 09) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

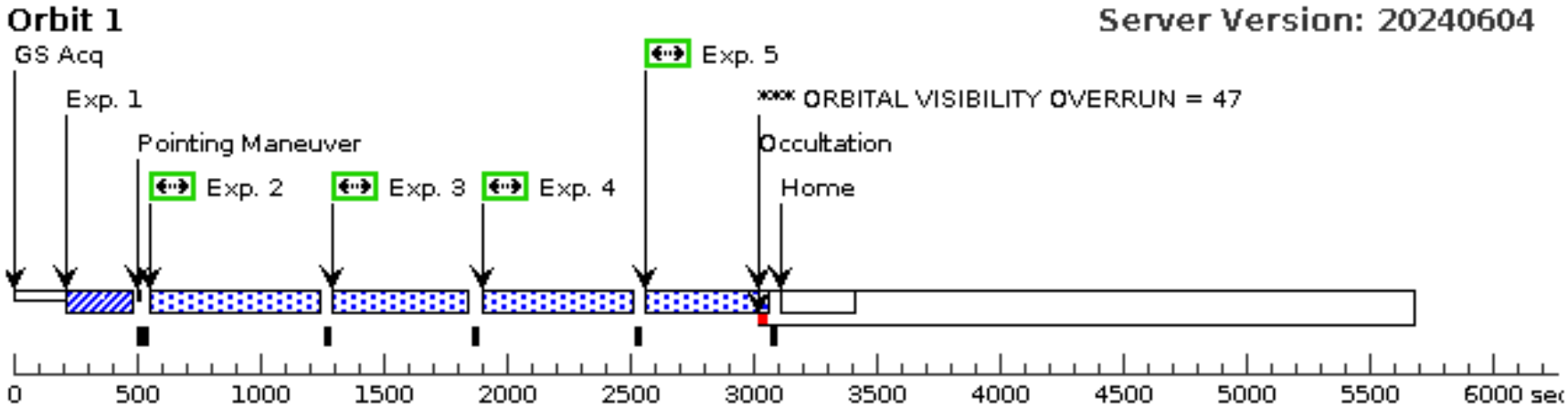
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	BD+22D521	RA: 03 38 22.5790 (54.5940792d) Dec: +22 29 58.84 (22.49968d) Equinox: J2000	Proper Motion RA: +0.021469 arcsec/yr Proper Motion Dec: -0.044808 arcsec/yr Parallax: 0.0073885" Epoch of Position: 2000 Radial Velocity: +6.8 km/sec	V=10.1+/-0.2 F8V (from Teff=6205), (BP-RP)=0.744, G=9.94, RV=6.8+/-0.8 kps, Prot=2.1 d, fX=1.5e-13	Reference Frame: ICRS

Comments:
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.ta.1887748)	(9) BD+22D521	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				24.0 Secs (24 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models F8V 6250 4.0; Renormalized to vegamag = 10.4 in filter Johnson/V									
2	(COS.sp.1887727)	(9) BD+22D521	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(9) BD+22D521	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(9) BD+22D521	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(9) BD+22D521	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 10, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 10) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 10) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

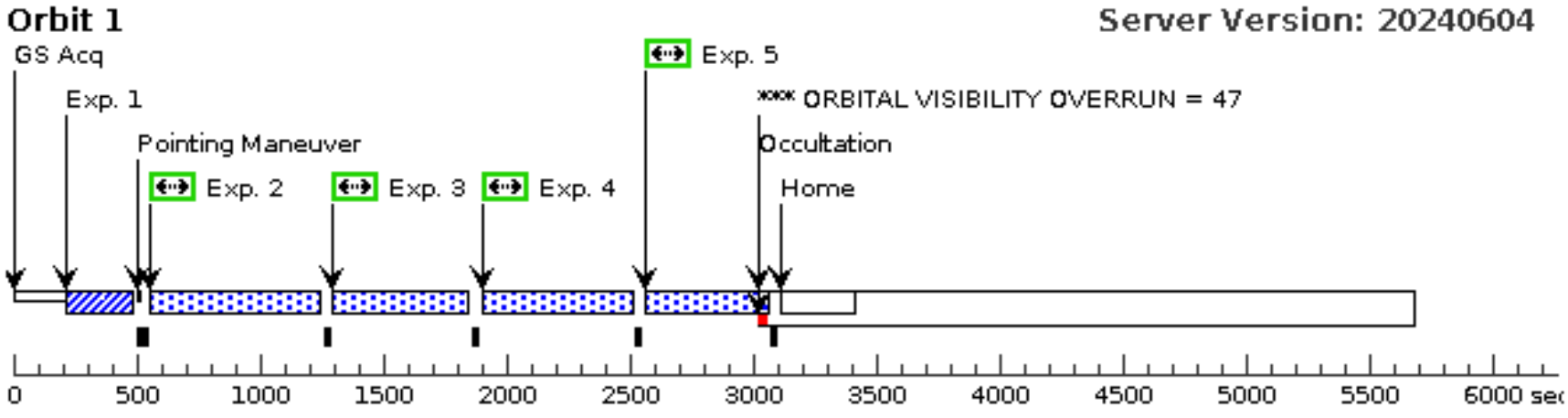
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	BD+21D516	RA: 03 45 9.8829 (56.2911788d) Dec: +21 42 16.54 (21.70459d) Equinox: J2000	Proper Motion RA: +0.020887 arcsec/yr Proper Motion Dec: -0.048144 arcsec/yr Parallax: 0.0079484" Epoch of Position: 2000 Radial Velocity: +7.3 km/sec	V=10.0+/-0.2 F8V (from Teff=6200), (BP-RP)=0.748, G=9.85, RV=7.3+/-0.3 kps, Prot=2.9 d	Reference Frame: ICRS

Comments:
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.ta.1887748)	(10) BD+21D516	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				24.0 Secs (24 Secs) *[==>]*	*[1]*
Comments: Castelli-Kurucz Models F8V 6250 4.0; Renormalized to vegamag = 10.4 in filter Johnson/V									
2	(COS.sp.1887727)	(10) BD+21D516	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	*[1]*
3	(COS.sp.1887727)	(10) BD+21D516	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.1887728)	(10) BD+21D516	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	*[1]*
5	(COS.sp.1887728)	(10) BD+21D516	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 17453, Visit 11, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 11) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 11) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

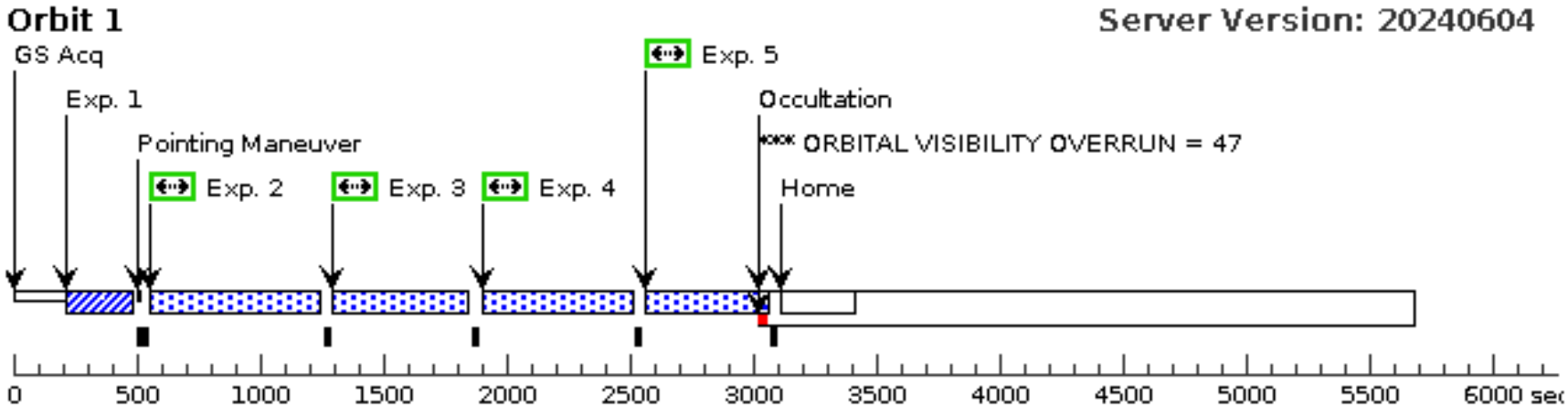
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	BD+22D574	RA: 03 49 56.4961 (57.4854004d) Dec: +23 13 7.04 (23.21862d) Equinox: J2000	Proper Motion RA: +0.018921 arcsec/yr Proper Motion Dec: -0.043201 arcsec/yr Parallax: 0.0069215" Epoch of Position: 2000 Radial Velocity: +6.6 km/sec	V=10.2+/-0.2 F9V (from Teff=6090), (BP-RP)=0.779, G=10.14, RV=6.6+/-0.6 kps, Prot=2.2 d	Reference Frame: ICRS

Comments:
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.ta.1887748)	(11) BD+22D574	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				24.0 Secs (24 Secs) *[==>]*	*[1]*
Comments: Castelli-Kurucz Models F8V 6250 4.0; Renormalized to vegamag = 10.4 in filter Johnson/V									
2	(COS.sp.1887727)	(11) BD+22D574	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	*[1]*
3	(COS.sp.1887727)	(11) BD+22D574	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.1887728)	(11) BD+22D574	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	*[1]*
5	(COS.sp.1887728)	(11) BD+22D574	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 17453, Visit 12, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 12) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 12) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

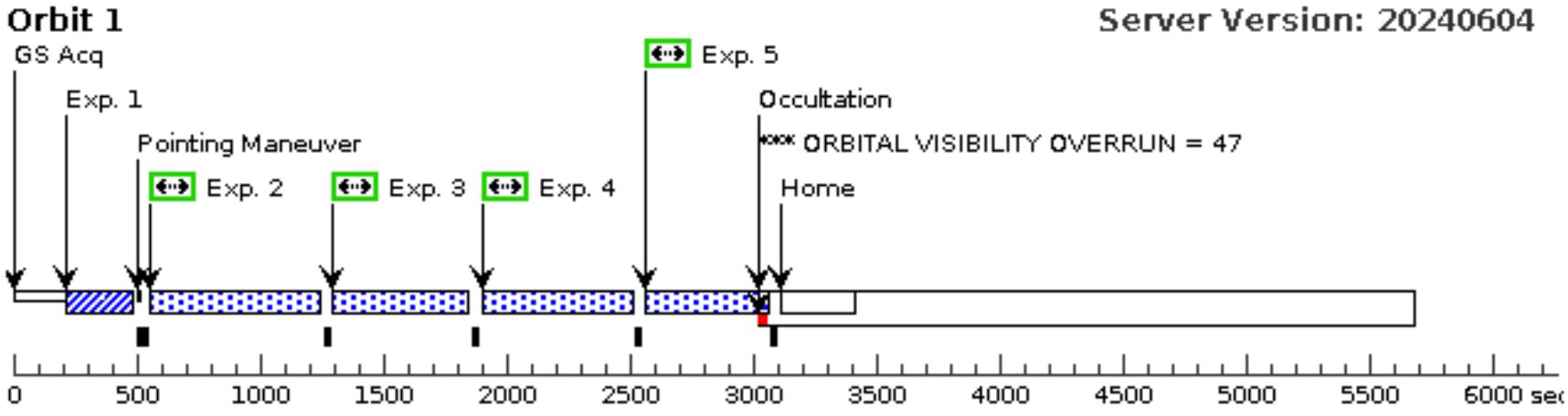
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	HD-283067	RA: 03 50 40.0721 (57.6669671d) Dec: +23 55 58.95 (23.93304d) Equinox: J2000	Proper Motion RA: +0.018706 arcsec/yr Proper Motion Dec: -0.044350 arcsec/yr Parallax: 0.0072514" Epoch of Position: 2000 Radial Velocity: +4.6 km/sec	V=10.4+/-0.2 F9V (from Teff=6090), (BP-RP)=0.780, G=10.16, RV=4.6+/-0.6 kps, Prot=2.2 d, fX=0.7e-13	Reference Frame: ICRS

Comments: V mag from Gaia G: V= G + 0.2
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.ta.1887748)	(12) HD-283067	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				24.0 Secs (24 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models F8V 6250 4.0; Renormalized to vegamag = 10.4 in filter Johnson/V									
2	(COS.sp.1887727)	(12) HD-283067	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(12) HD-283067	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			500 Secs (500 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(12) HD-283067	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(12) HD-283067	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			443 Secs (443 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 13, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 13) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 13) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

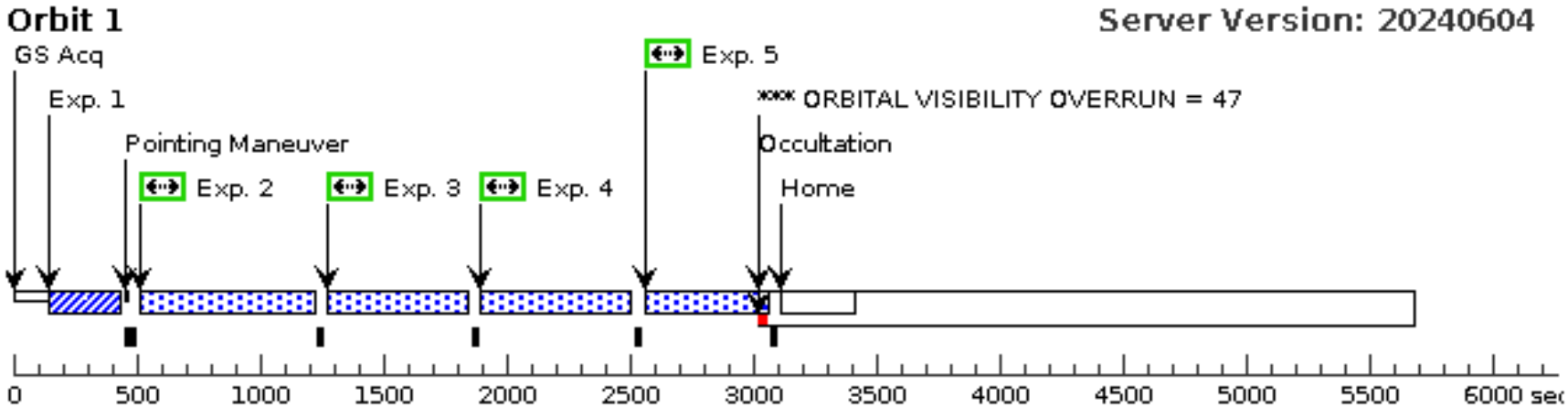
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	TYC-1800-2144-1	RA: 03 48 34.5104 (57.1437933d) Dec: +23 26 5.25 (23.43479d) Equinox: J2000	Proper Motion RA: +0.019372 arcsec/yr Proper Motion Dec: -0.045078 arcsec/yr Parallax: 0.0073801" Epoch of Position: 2000 Radial Velocity: +6.5 km/sec	V=10.4+/-0.2 G0V (from Teff=6060), (BP-RP)=0.790, G=10.21, RV=6.5+/-0.5 kps, Prot=2.9 d, fX=1.1e-13	Reference Frame: ICRS

Comments: V mag from Gaia G: V= G + 0.2
Category=STAR
Description=[G V-IV]
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.ta.1887751)	(13) TYC-1800-2144-1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				2.0 Secs (2 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models G0V 6000 4.5, Renormalized to vegamag = 10.6 in filter Johnson/V									
2	(COS.sp.1887727)	(13) TYC-1800-2144-1	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(13) TYC-1800-2144-1	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(13) TYC-1800-2144-1	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(13) TYC-1800-2144-1	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 14, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 14) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 14) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

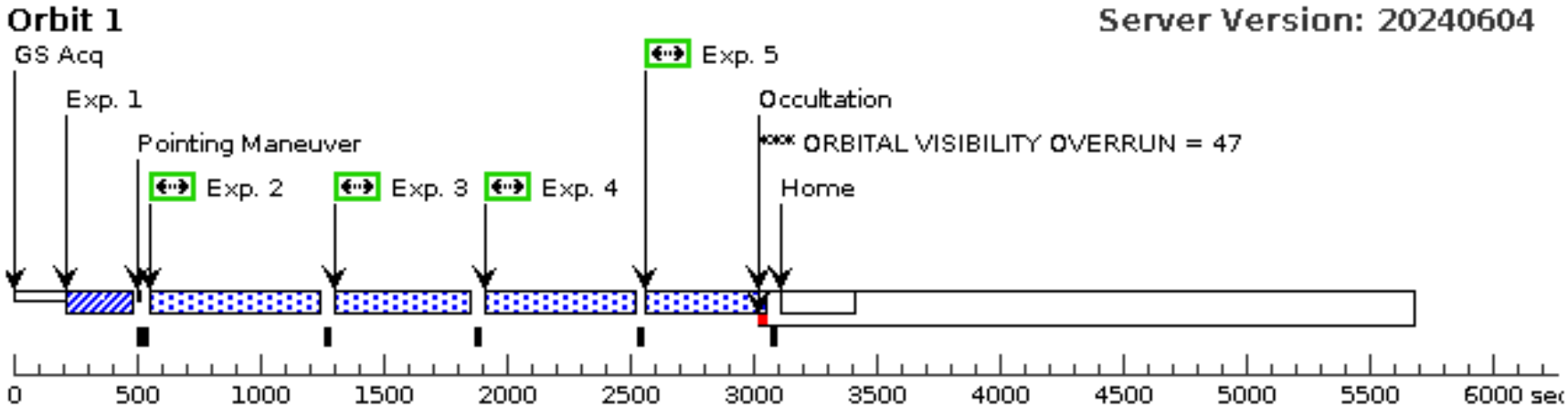
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(14)	BD+22D548	RA: 03 46 10.0424 (56.5418433d) Dec: +23 20 24.05 (23.34001d) Equinox: J2000	Proper Motion RA: +0.021082 arcsec/yr Proper Motion Dec: -0.049851 arcsec/yr Parallax: 0.0081859" Epoch of Position: 2000 Radial Velocity: +5.8 km/sec	V=10.2+/-0.2 G0V (from Teff=6030), (BP-RP)=0.796, G=10.00, RV=5.8+/-0.4 kps, Prot=2.9 d, fX=1.5e-13	Reference Frame: ICRS

Comments:
Category=STAR
Description=[G V-IV]
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.ta.1900529)	(14) BD+22D548	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				25.0 Secs (25 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models G0V 6000 4.5; Renormalized to vegamag = 10.18 in filter Johnson/V									
2	(COS.sp.1887727)	(14) BD+22D548	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			502 Secs (502 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(14) BD+22D548	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			502 Secs (502 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(14) BD+22D548	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			440 Secs (440 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(14) BD+22D548	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			440 Secs (440 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 15, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 15) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 15) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

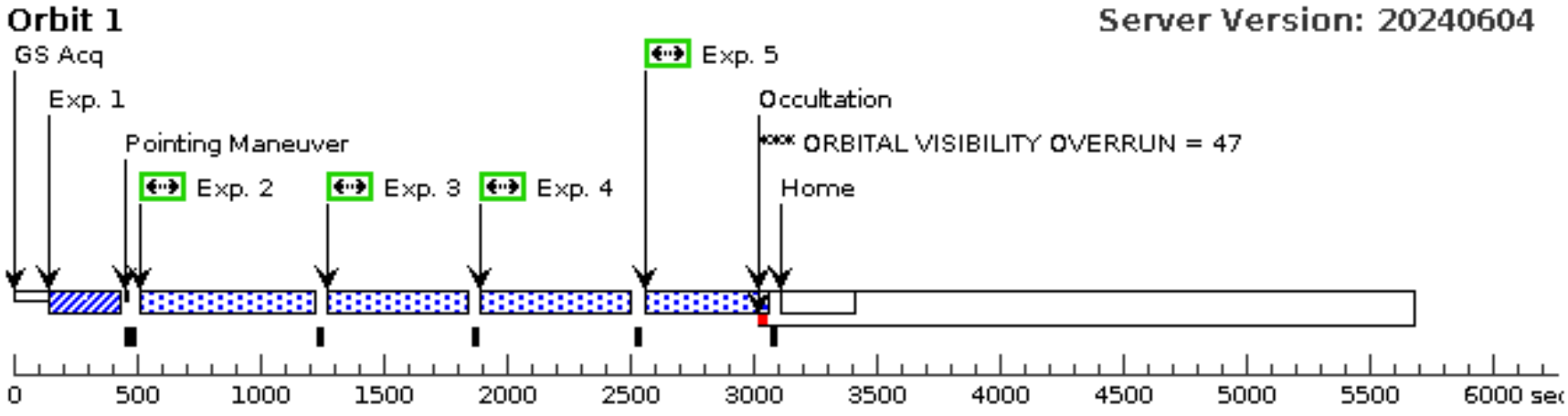
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	HD-282972	RA: 03 48 17.1160 (57.0713167d) Dec: +23 53 25.27 (23.89035d) Equinox: J2000	Proper Motion RA: +0.017886 arcsec/yr Proper Motion Dec: -0.045495 arcsec/yr Parallax: 0.0072889" Epoch of Position: 2000 Radial Velocity: +5.7 km/sec	V=10.5+/-0.2 G0V (from Teff=6030), (BP-RP)=0.798, G=10.25, RV=5.7+/-0.4 kps, Prot=3.8 d, fX=0.6e-13	Reference Frame: ICRS

Comments: V mag from Gaia G: V= G + 0.2 (SIMBAD V=12.1 apparently in error)
Category=STAR
Description=[G V-IV]
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.ta.1887751)	(15) HD-282972	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				2.0 Secs (2 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models G0V 6000 4.5; Renormalized to vegamag = 10.6 in filter Johnson/V									
2	(COS.sp.1887727)	(15) HD-282972	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(15) HD-282972	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(15) HD-282972	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(15) HD-282972	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 16, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 16) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 16) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

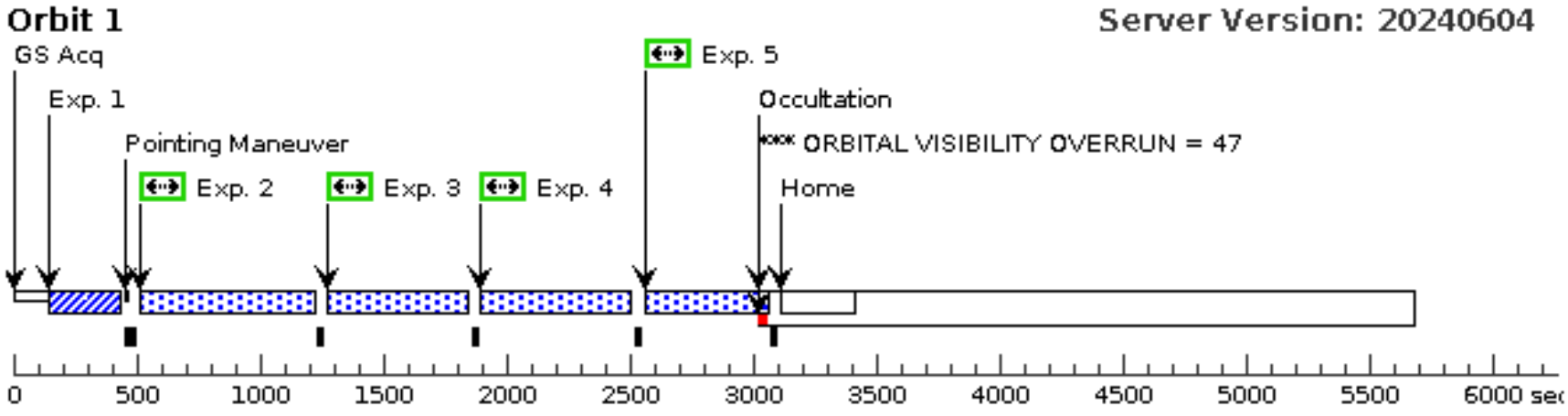
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(16)	BD+23D527	RA: 03 46 53.7464 (56.7239433d) Dec: +23 35 0.80 (23.58356d) Equinox: J2000	Proper Motion RA: +0.020796 arcsec/yr Proper Motion Dec: -0.045154 arcsec/yr Parallax: +0.0074974" Epoch of Position: 2000 Radial Velocity: +5.7 km/sec	V=10.6+/-0.2 G1V (from Teff=5980), (BP-RP)=0.815, G=10.39, RV=5.7+/-0.3 kps, Prot=3.6 d, fX=0.6e-13	Reference Frame: ICRS

Comments:
Category=STAR
Description=[G V-IV]
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.ta.1887751)	(16) BD+23D527	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				2.0 Secs (2 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models G0V 6000 4.5; Renormalized to vegamag = 10.6 in filter Johnson/V									
2	(COS.sp.1887727)	(16) BD+23D527	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(16) BD+23D527	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(16) BD+23D527	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(16) BD+23D527	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 17453, Visit 17, completed Tue Jun 11 19:03:01 GMT 2024

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 17) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave.

(Visit 17) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(17)	HD-282963	RA: 03 46 22.6698 (56.5944575d) Dec: +24 34 12.54 (24.57015d) Equinox: J2000	Proper Motion RA: +0.019683 arcsec/yr Proper Motion Dec: -0.044994 arcsec/yr Parallax: +0.0073937" Epoch of Position: 2000 Radial Velocity: +6.6 km/sec	V=10.5+/-0.2 G1V (from Teff=5960), (BP-RP)=0.821, G=10.30, RV=6.6+/-0.5 kps, Prot=3.2 d, fX=0.9e-13	Reference Frame: ICRS

Comments: V mag from Gaia G: V= G + 0.2
Category=STAR
Description=[G V-IV]
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.ta.1887751)	(17) HD-282963	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				2.0 Secs (2 Secs) *[==>]*	 ***[1]***
Comments: Castelli-Kurucz Models G0V 6000 4.5; Renormalized to vegamag = 10.6 in filter Johnson/V									
2	(COS.sp.1887727)	(17) HD-282963	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=1; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
3	(COS.sp.1887727)	(17) HD-282963	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=10000; FP-POS=2; LIFETIME-POS=LP4			522 Secs (522 Secs) *[==>]*	 ***[1]***
4	(COS.sp.1887728)	(17) HD-282963	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=3; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***
5	(COS.sp.1887728)	(17) HD-282963	COS/FUV, TIME-TAG, PSA	G160M 1533 A	BUFFER-TIME=10000; FP-POS=4; LIFETIME-POS=LP4			446 Secs (446 Secs) *[==>]*	 ***[1]***

Orbit Structure