16597 - ULLYSES Late K- and Early M-type T Tauri Survey Stars in Cha I

Cycle: 29, Proposal Category: GO/DD

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
1C	(1) SZ19	COS/FUV COS/NUV	3	14-Apr-2022 10:00:23.0	yes
1D	(1) SZ19	COS/FUV COS/NUV	3	14-Apr-2022 10:00:24.0	yes
1E	(1) SZ19	COS/FUV COS/NUV	4	14-Apr-2022 10:00:24.0	yes
1F	(1) SZ19	COS/FUV COS/NUV	4	14-Apr-2022 10:00:25.0	yes
1S	(1) SZ19 CCDFLAT WAVE	STIS/CCD STIS/NUV-MAMA	1	14-Apr-2022 10:00:27.0	yes
2C	(2) V-VZ-CHA	COS/FUV COS/NUV	3	14-Apr-2022 10:00:28.0	yes
2D	(2) V-VZ-CHA	COS/FUV COS/NUV	3	14-Apr-2022 10:00:28.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
2E	(2) V-VZ-CHA	COS/FUV COS/NUV	4	14-Apr-2022 10:00:29.0	yes
2F	(2) V-VZ-CHA	COS/FUV COS/NUV	3	14-Apr-2022 10:00:30.0	yes
2S	(2) V-VZ-CHA CCDFLAT WAVE	STIS/CCD STIS/NUV-MAMA	1	14-Apr-2022 10:00:31.0	yes

29 Total Orbits Used

ABSTRACT

The Space Telescope Science Institute (STScI) Director has decided to devote up to 1000 orbits of Director's Discretionary time in observing Cycles 27-29 to a new Hubble Ultraviolet Legacy program focused on star formation and associated stellar physics. This new program, ULLYSES (UV Legacy Library of Young Stars as Essential Standards), will provide a UV spectroscopic reference sample of young (< 10 Myr) high- and low-mass stars. It will target over ~150 OB stars in the Magellanic Clouds and lower metallicity galaxies in the Local Group, and ~40 T Tauri stars and brown dwarfs in the Milky Way. In addition, ULLYSES will monitor 4 typical T Tauri stars over different rotational phases through at least three rotation periods, and over timescales of months to years. The resulting library will provide template spectra of massive stars at metallicities substantially below the well studied, while the low mass sample will cover a wide range of ages, accretion rates, and masses, including objects down to well below 0.5 M_sun. The legacy of this large UV dataset on the first 10 Myr of stellar evolution will be enhanced by complementary datasets obtained by the scientific community. In addition to the core goals of the program related to stellar astrophysics of low and high mass stars, this data will also enable exciting science in the fields of ISM, CGM, jets, and exoplanets. ULLYSES will be modeled after the Frontier Fields program: all data obtained will be non-proprietary. The implementation team at STScI is developing high-level science data products and a sophisticated database and website for disseminating data from the ULLYSES program and ancillary datasets for the ULLYSES target sample from space and ground-based facilities.

OBSERVING DESCRIPTION

This proposal includes a subset of the low mass ULLYSES survey stars. Each target will be observed with the COS c1291 + c1589 + c1623 settings, as well as with STIS G230L, G430L, and G750L. All observations will normally be constrained to occur within 1 day.

Signal-to-noise requirements used to determine the desired exposures times were defined as follows:

COS/G130M/c1291: N V 1239 +- 1 A -- S/N=10/6-pix-resel at the peak of the line
COS/G160M/c1589: C IV 1549 +- 1 A -- S/N=20/6-pix-resel at the peak of the line (combined c1589 & c1623)
COS/G160M/c1623: C IV 1549 +- 1 A -- S/N=20/6-pix-resel at the peak of the line (combined c1589 & c1623)
STIS/G230L/52X2: Mg II 2800 +-15 A -- S/N=20/2-pix-resel at the peak of the line
STIS/G430L/52X2: continuum average 4000 +-5 A -- S/N=20/2-pix-resel (2 reads)
STIS/G750L/52X2: continuum average 5700 +-5 A -- S/N=20/2-pix-resel (2 reads)

Additional details about the scientific motivation and technical implementation strategy of the ULLYSES observations can be found at http://www.stsci.edu/stsci-research/research-topics-and-programs/ullyses. The ULLYSES program is based on the recommendations of a working group led by Sally Oey; the full text of that group's report can be found at http://www.stsci.edu/files/live/sites/www/files/home/stsci-research/research-topics-and-programs/ullyses/_documents/HSTUV-report-ULLYSES.pdf.

Visit

Proposal 16597, SZ19-COS (1C), completed Thu Apr 14 14:00:32 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 11-MAY-2022:00:00:00; GROUP 1C,1D,1E,1F,1S WITHIN 2D

Comments: vstatus; 1C; SZ19; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; SZ19 'VI DI CHA' ; COS ; DJS
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 15

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SZ19 Alt Name1: DI-CHA Alt Name2: J11072074-7738073	RA: 11 07 20.6153 (166.8358971d) Dec: -77 38 7.29 (-77.63536d) Equinox: J2000	Proper Motion RA: -22.552486155521002 mas/yr Proper Motion Dec: 1.213864229788 mas/yr Parallax: 0.005291329565933" Epoch of Position: 2016	V=10.93 SpT=K0; A_V=1.50; U=11.0; V=10.9	Reference Frame: ICRS

Comments: Sz19 : DI Cha, J11072074-7738073
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=Sz+19&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
Input file: targets_up_to_May30-2022.csv
sz19_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:02, 0.24
---
tstatus; SZ19; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; SZ19 'VI DI CHA'
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527582)	(1) SZ19	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				46 Secs (46 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527582*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.sa.1527580*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G160M/1589-3 (COS.sp.1527591)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=14500; FP-POS=3			2168 Secs (2168 Secs) *[==>]*	***[1]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1589,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=2324.3 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1589 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 65.8 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1548.4 A
Calculation performed 2021-06-18T15:04:58, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527591*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527594*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G160M/1589-4 (COS.sp.1527591)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=14500; FP-POS=4			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1589,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=2324.3 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1589 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 65.8 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1548.4 A
Calculation performed 2021-06-18T15:04:58, v0.24

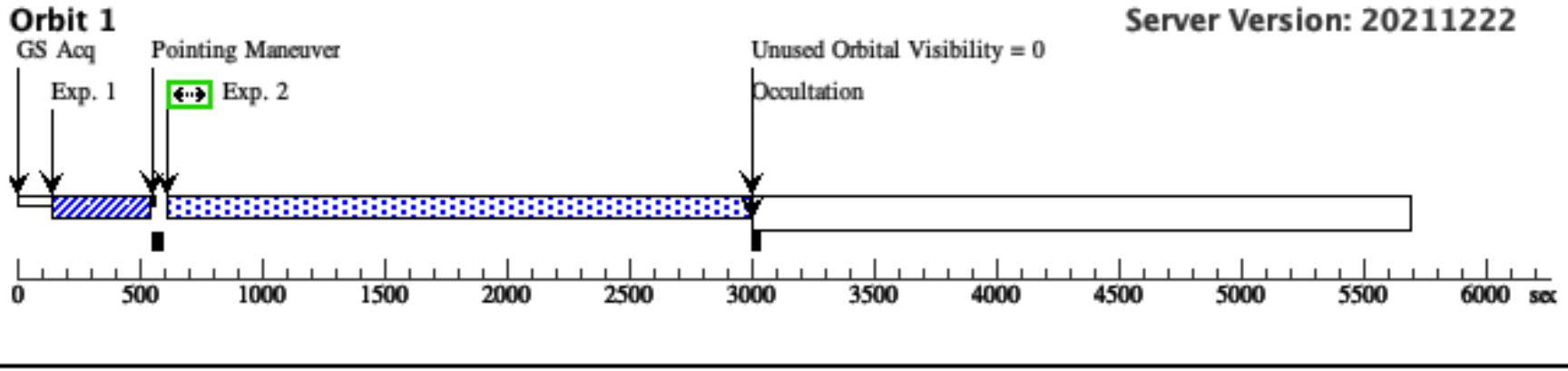
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527591*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527594*

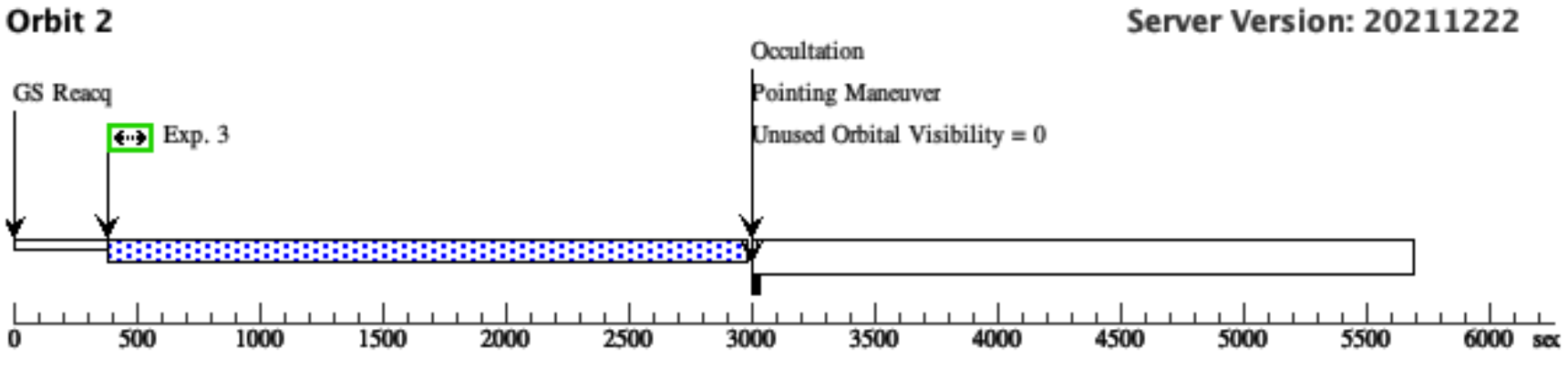
	4	G130M/129 1-3 (COS.sp.1527606) (1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=3	2550 Secs (2550 Secs) *[==>]*	***[3]***

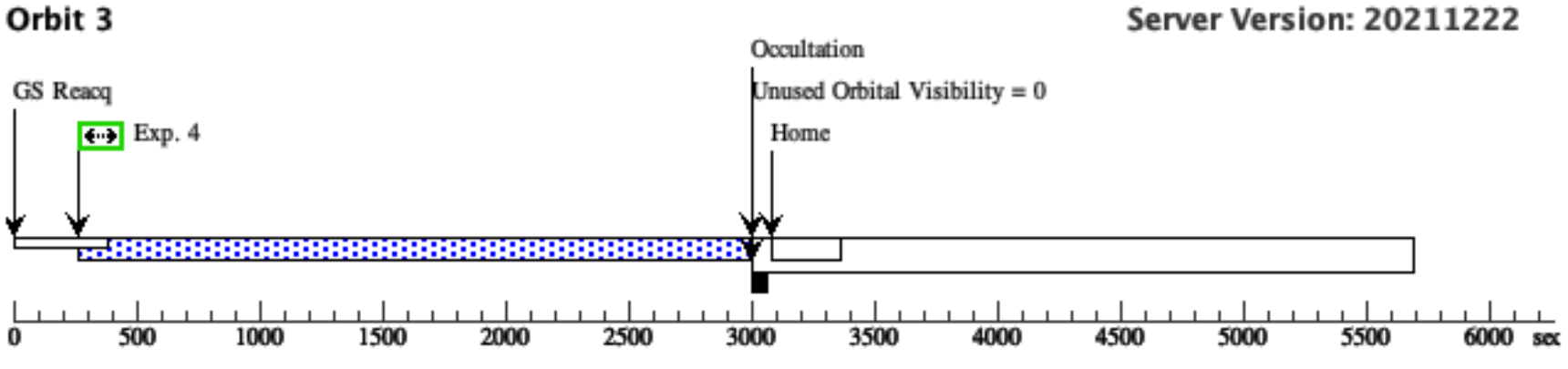
Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

Orbit Structure







Visit

Proposal 16597, SZ19-COS (1D), completed Thu Apr 14 14:00:32 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 11-MAY-2022:00:00:00

Comments: vstatus; 1D; SZ19; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; SZ19 'VI DI CHA' ; COS ; DJS
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 15

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SZ19 Alt Name1: DI-CHA Alt Name2: J11072074-7738073	RA: 11 07 20.6153 (166.8358971d) Dec: -77 38 7.29 (-77.63536d) Equinox: J2000	Proper Motion RA: -22.552486155521002 mas/yr Proper Motion Dec: 1.213864229788 mas/yr Parallax: 0.005291329565933" Epoch of Position: 2016	V=10.93 SpT=K0; A_V=1.50; U=11.0; V=10.9	Reference Frame: ICRS

Comments: Sz19 : DI Cha, J11072074-7738073
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=Sz+19&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
Input file: targets_up_to_May30-2022.csv
sz19_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:02, 0.24
---
tstatus; SZ19; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; SZ19 'VI DI CHA'
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527582)	(1) SZ19	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				46 Secs (46 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527582*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.sa.1527580*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G160M/1623-1 (COS.sp.1527600)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=1400; FP-POS=1			2158 Secs (2158 Secs) *[==>]*	***[1]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1623,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=2308.7 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1623 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 65.6 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1548.4 A
Calculation performed 2021-06-18T15:05:00, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527600*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527598*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G160M/1623-2 (COS.sp.1527600)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=1400; FP-POS=2			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1623,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=2308.7 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1623 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 65.6 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1548.4 A
Calculation performed 2021-06-18T15:05:00, v0.24

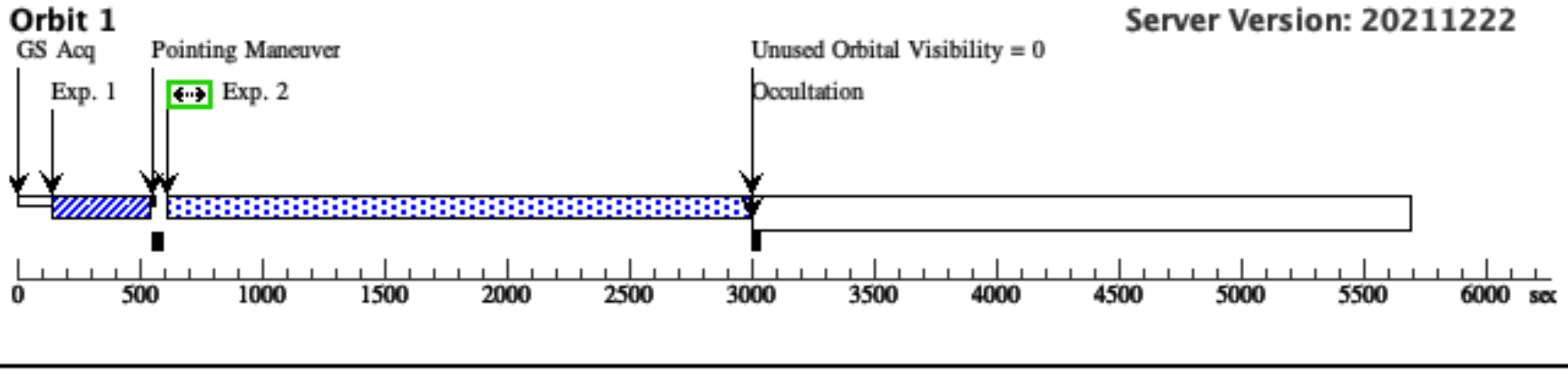
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527600*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527598*

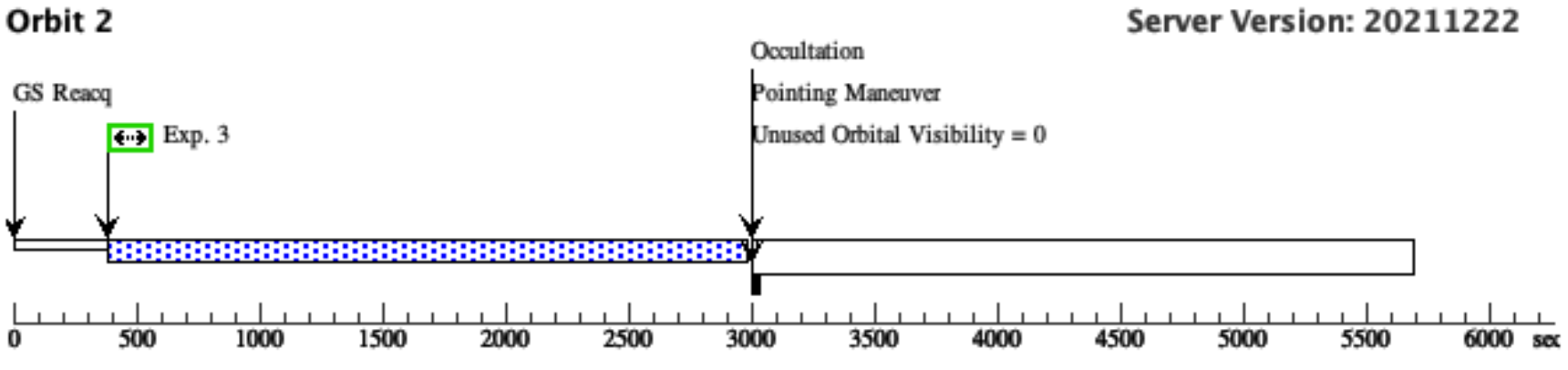
	4	G130M/129 1-4 (COS.sp.1527606) (1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=4	2550 Secs (2550 Secs) *[==>]*	***[3]***

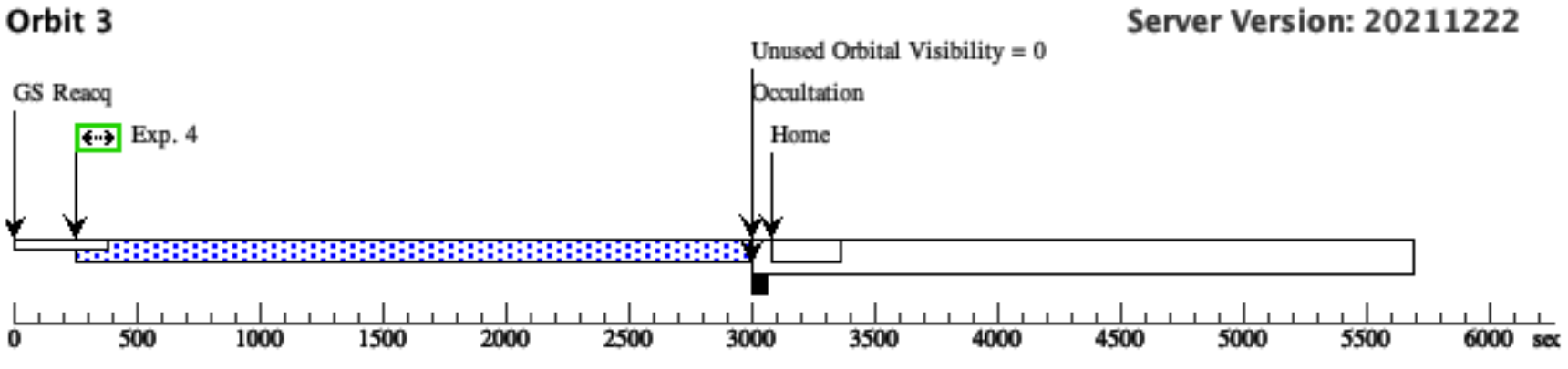
Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

Orbit Structure







Visit

Proposal 16597, SZ19-COS (1E), completed Thu Apr 14 14:00:32 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 11-MAY-2022:00:00:00

Comments: vstatus; 1E; SZ19; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; SZ19 'VI DI CHA' ; COS ; DJS
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 15

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SZ19 Alt Name1: DI-CHA Alt Name2: J11072074-7738073	RA: 11 07 20.6153 (166.8358971d) Dec: -77 38 7.29 (-77.63536d) Equinox: J2000	Proper Motion RA: -22.552486155521002 mas/yr Proper Motion Dec: 1.213864229788 mas/yr Parallax: 0.005291329565933" Epoch of Position: 2016	V=10.93 SpT=K0; A_V=1.50; U=11.0; V=10.9	Reference Frame: ICRS

Comments: Sz19 : DI Cha, J11072074-7738073
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=Sz+19&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
Input file: targets_up_to_May30-2022.csv
sz19_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:02, 0.24
---
tstatus; SZ19; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; SZ19 'VI DI CHA'
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527582)	(1) SZ19	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				46 Secs (46 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527582*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.sa.1527580*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G130M/1291 1-3 (COS.sp.1527606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=3			2210 Secs (2210 Secs) *[==>]*	***[1]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G130M/1291 1-3 (COS.sp.1527606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=3			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

4	G130M/129 1-3 (COS.sp.1527606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=3	2552 Secs (2552 Secs) *[==>]*	***[3]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

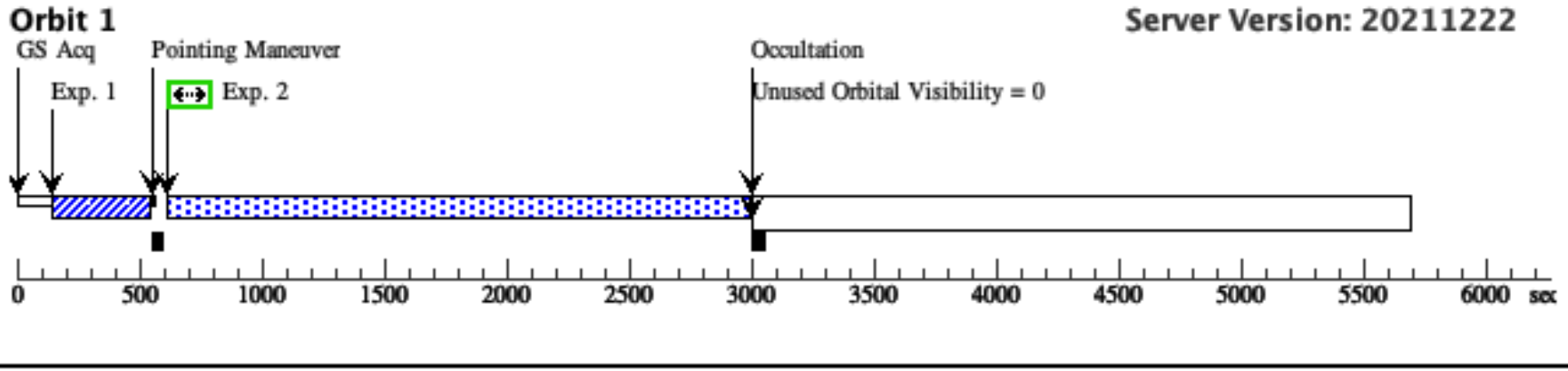
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

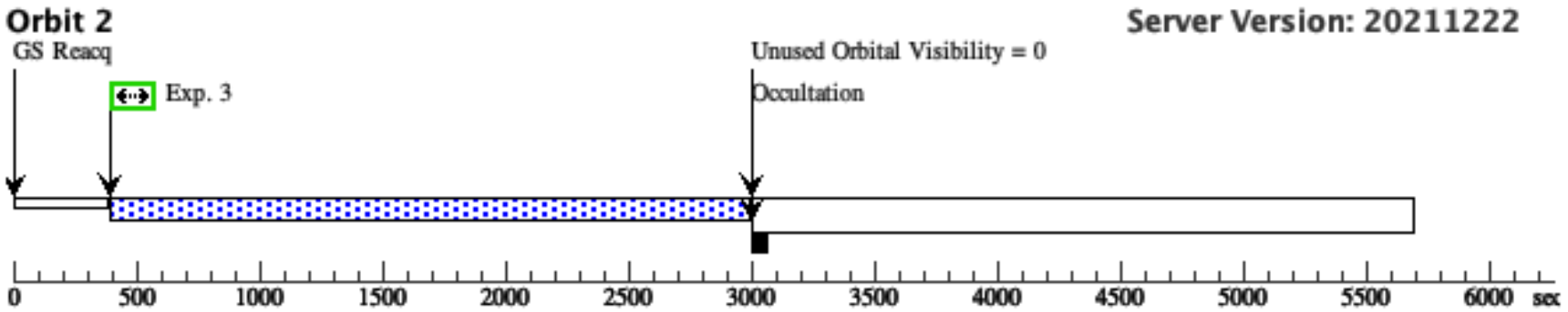
5	G130M/129 1-3 (COS.sp.1527606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=3	2552 Secs (2552 Secs) *[==>]*	***[4]***

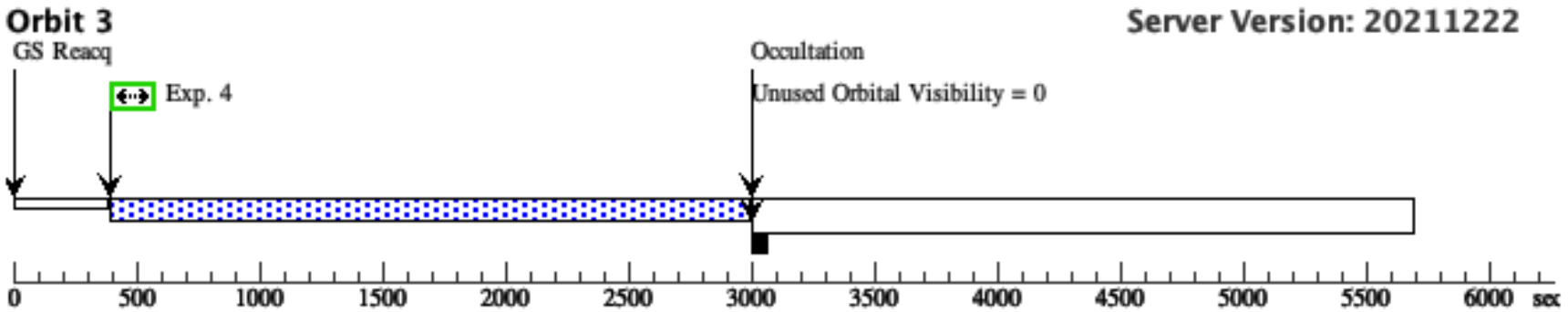
Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

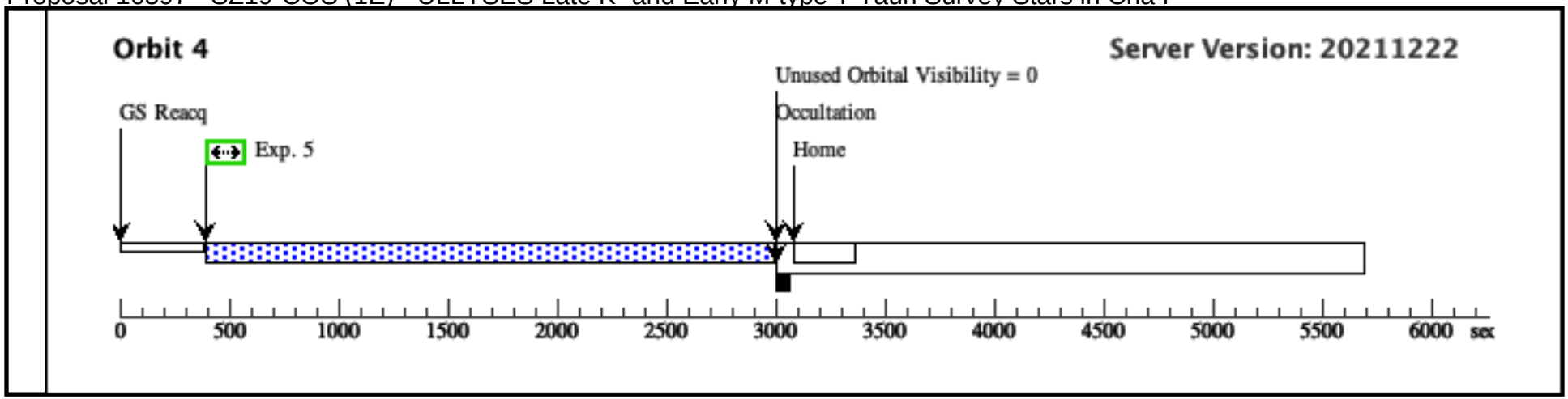
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

Orbit Structure








Orbit 4
Server Version: 20211222
Unused Orbital Visibility = 0
GS Reacq
Occultation
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16597, SZ19-COS (1F), completed Thu Apr 14 14:00:32 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 11-MAY-2022:00:00:00

Comments: vstatus; 1F; SZ19; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; SZ19 'VI DI CHA' ; COS ; DJS
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 15

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SZ19 Alt Name1: DI-CHA Alt Name2: J11072074-7738073	RA: 11 07 20.6153 (166.8358971d) Dec: -77 38 7.29 (-77.63536d) Equinox: J2000	Proper Motion RA: -22.552486155521002 mas/yr Proper Motion Dec: 1.213864229788 mas/yr Parallax: 0.005291329565933" Epoch of Position: 2016	V=10.93 SpT=K0; A_V=1.50; U=11.0; V=10.9	Reference Frame: ICRS

Comments: Sz19 : DI Cha, J11072074-7738073
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=Sz+19&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
Input file: targets_up_to_May30-2022.csv
sz19_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:02, 0.24
---
tstatus; SZ19; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; SZ19 'VI DI CHA'
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527582)	(1) SZ19	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				46 Secs (46 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527582*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.sa.1527580*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G130M/1291 1-4 (COS.sp.1527606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=4			2210 Secs (2210 Secs) *[==>]*	***[1]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G130M/1291 1-4 (COS.sp.1527606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=4			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

4	G130M/129 1-4 (COS.sp.152 7606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=4	2552 Secs (2552 Secs) *[==>]*	***[3]***

Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

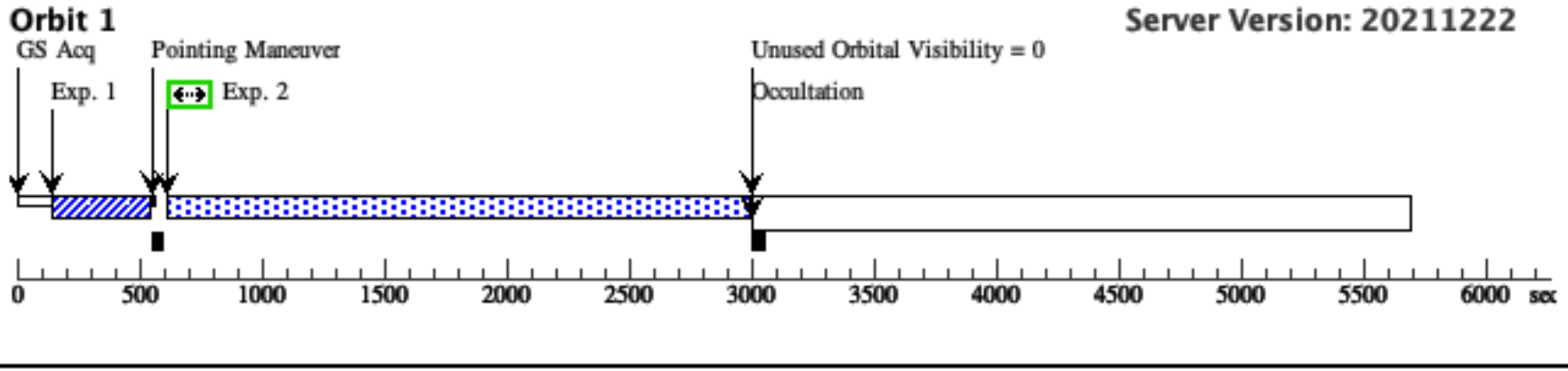
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

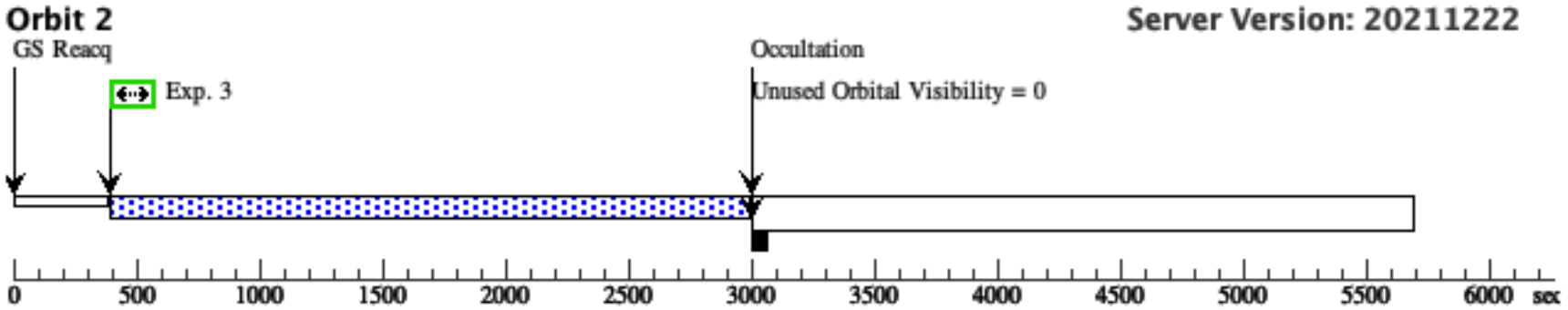
5	G130M/129 1-4 (COS.sp.152 7606)	(1) SZ19	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=5300; FP-POS=4	2552 Secs (2552 Secs) *[==>]*	***[4]***

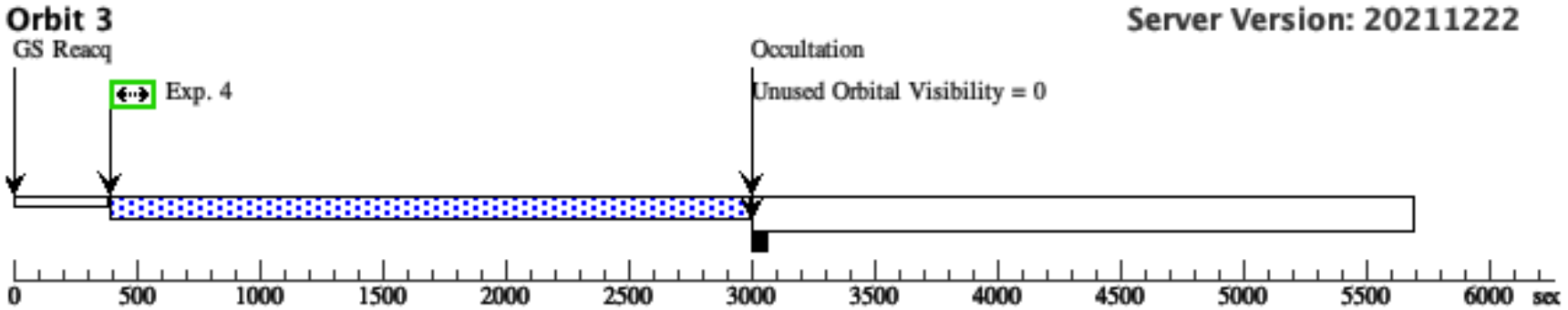
Comments: sz19_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
For exptime=14189.5 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 281.9 cts/s/segment
brightest pixel: 0.001 cts/s/pix at 1304.9 A
Calculation performed 2021-06-18T15:05:02, v0.24

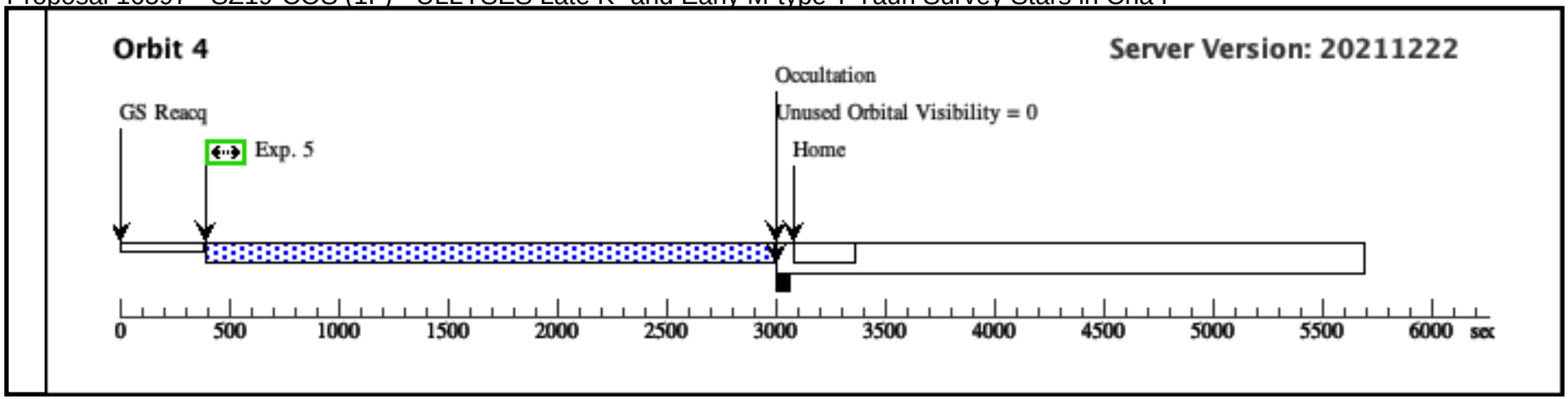
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527606*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527609*

Orbit Structure








Orbit 4
Server Version: 20211222
Occultation
GS Reacq
Unused Orbital Visibility = 0
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16597, SZ19-STIS (1S), completed Thu Apr 14 14:00:32 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 11-MAY-2022:00:00:00

Comments: vstatus; 1S; SZ19; P/STIS approved for submission; P/DJS 02/08/21 ; intrev: complete ; S/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; SZ19 'VI DI CHA' ; STIS ; DJS
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; N/A
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; N/A
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated STIS orbits = 1

Fixed Targets

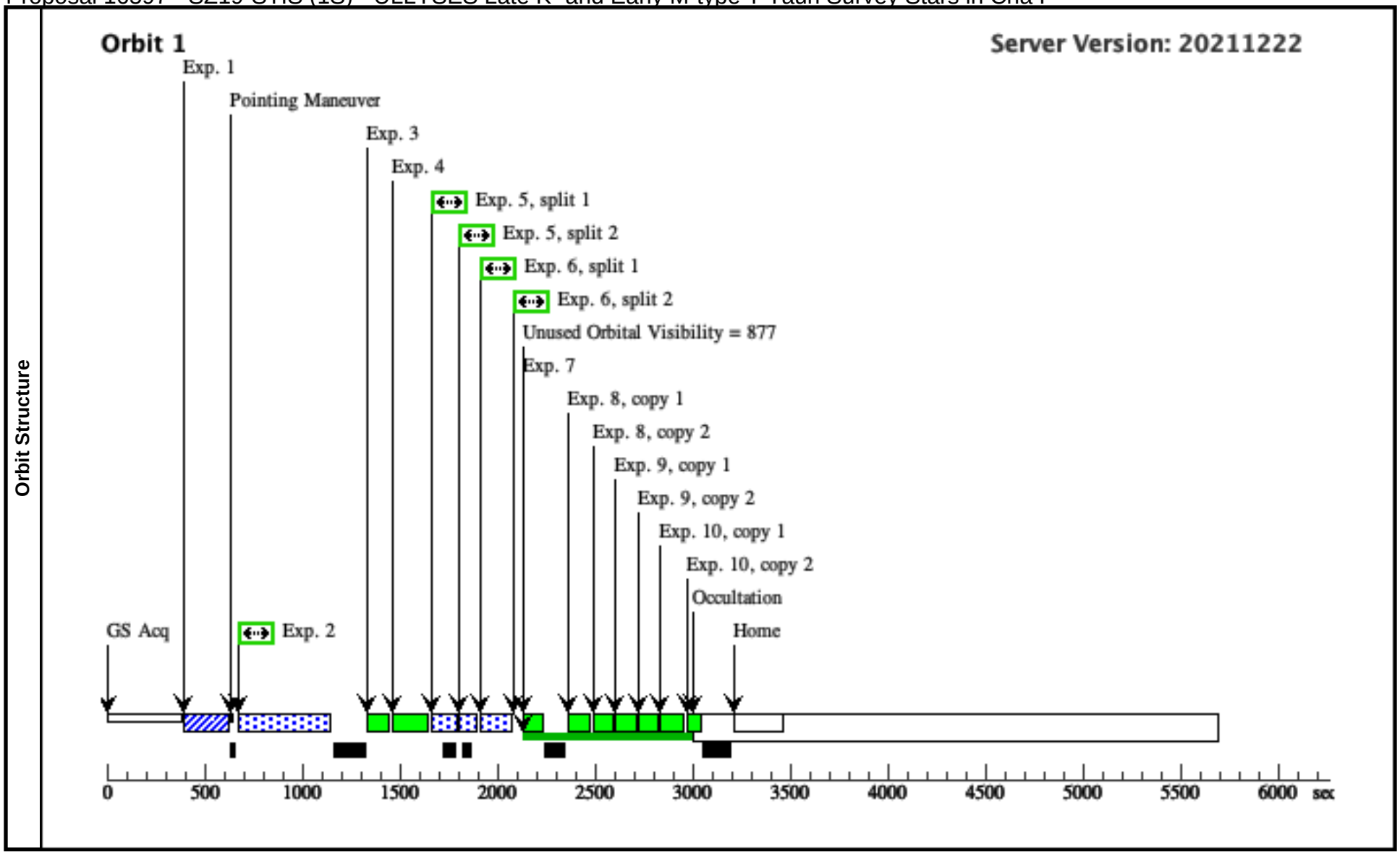
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SZ19 Alt Name1: DI-CHA Alt Name2: J11072074-7738073	RA: 11 07 20.6153 (166.8358971d) Dec: -77 38 7.29 (-77.63536d) Equinox: J2000	Proper Motion RA: -22.552486155521002 mas/yr Proper Motion Dec: 1.213864229788 mas/yr Parallax: 0.005291329565933" Epoch of Position: 2016	V=10.93 SpT=K0; A_V=1.50; U=11.0; V=10.9	Reference Frame: ICRS

Comments: Sz19 : DI Cha, J11072074-7738073
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=Sz+19&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160
M: 2.08 ; log(dm/dt): -7.63*
Input file: targets_up_to_May30-2022.csv
sz19_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:02, 0.24
---
tstatus; SZ19; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; SZ19 'VI DI CHA'
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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 (STIS.ta.1527639)	(1) SZ19	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	*[1]*
	Comments: ETC runs were done for two cases: ** For exposure time, a template with an extra A_V of 0.5 were used: STIS.ta.1527639* ** For saturation, a template with 4x the flux and no additional extinction was used: STIS.ta.1527641*								
2	G230L/2376 (STIS.sp.1527681)	(1) SZ19	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	WAVECAL=NO; BUFFER-TIME=659.0			320 Secs (320 Secs) *[==>]*	*[1]*
	Comments: sz19_lya2_etc_scaled_pAV0.50.txt; stis,nuvmama,g230l,c2376,52x2,mjd#59670 *Input file: targets_up_to_May30-2022.csv* *Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160* *M*: 2.08 ; log(dm/dt): -7.63* *For exptime=160.2 s, spectral region:* *2800.0 +- 15.0 A achieves SNR=20.0 / 2-pix-resel* *A factor of 2.0 has been applied to the exptime in each exposure.* *global countrate (brightest segment): 2425.4 cts/s/segment* *brightest pixel: 0.516 cts/s/pix at 2788.8 A* *Calculation performed 2021-06-18T15:05:02, v0.24* --- *The text above was done for the initial calculation of exposure times and is from the original .prop file.* *ETC runs were done for two cases:* ** For exposure time, a template with an extra A_V of 0.5 were used: STIS.sp.1527681* ** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: STIS.sp.1527682*								
3	G230L/2376 WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A				*[==>]*	*[1]*
4	G430L/4300 WAVECAL	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A				*[==>]*	*[1]*
5	G430L/4300 (STIS.sp.1527679)	(1) SZ19	STIS/CCD, ACCUM, 52X2	G430L 4300 A	WAVECAL=NO; CR-SPLIT=2; GAIN=1			107 Secs (107 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	*[1]*
	Comments: sz19_lya2_etc_scaled_pAV0.50.txt; stis,ccd,g430l,c4300,52x2,mjd#59670 *WARNING: operating mode = ACCUM* *Input file: targets_up_to_May30-2022.csv* *Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160* *M*: 2.08 ; log(dm/dt): -7.63* *For exptime=52.2 s, n_reads=2, spectral region:* *4000.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel* *A factor of 2.0 has been applied to the exptime in each exposure.* *global countrate (brightest segment): 47601.9 cts/s/segment* *brightest pixel: 26.177 cts/s/pix at 4871.0 A* *Calculation performed 2021-06-18T15:05:02, v0.24* --- *The text above was done for the initial calculation of exposure times and is from the original .prop file.* *ETC runs were done for two cases:* ** For exposure time, a template with an extra A_V of 0.5 were used: STIS.sp.1527679* ** For saturation, a template with 4x the flux and no additional extinction was used: STIS.sp.1527680*								

	6	G750L/7751 (1) SZ19 (STIS.sp.15 27678)	STIS/CCD, ACCUM, 52X2	G750L 7751 A	WAVECAL=NO; CR-SPLIT=2; GAIN=1	6 Secs (6 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
		Comments: sz19_lya2_etc_scaled_pAV0.50.txt; stis,ccd,g750l,c7751,52x2,mjd#59670 *WARNING: operating mode = ACCUM* *Input file: targets_up_to_May30-2022.csv* *Spectral type: K0 ; A_V: 1.5 ; Distance (pc): 160* *M*: 2.08 ; log(dm/dt): -7.63* *For exptime=3.1 s, n_reads=2, spectral region:* *5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel* *A factor of 2.0 has been applied to the exptime in each exposure.* *global countrate (brightest segment): 134783.5 cts/s/segment* *brightest pixel: 241.966 cts/s/pix at 6563.9 A* *Calculation performed 2021-06-18T15:05:02, v0.24* --- *The text above was done for the initial calculation of exposure times and is from the original .prop file.* *ETC runs were done for two cases:* ** For exposure time, a template with an extra A_V of 0.5 were used: STIS.sp.1527678* ** For saturation, a template with 4x the flux and no additional extinction was used: STIS.sp.1527672*						
	7	G750L/7751 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		*[==>]*	***[1]***
	8	G750L/7751 CCDFLAT CCDFLAT 1	STIS/CCD, ACCUM, 0.3X0.09	G750L 7751 A		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
	9	G750L/7751 CCDFLAT CCDFLAT 2	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
	10	G750L/7751 CCDFLAT CCDFLAT 3	STIS/CCD, ACCUM, 52X2	G750L 7751 A		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20211222
Exp. 1
Pointing Maneuver
Exp. 3
Exp. 4
Exp. 5, split 1
Exp. 5, split 2
Exp. 6, split 1
Exp. 6, split 2
Unused Orbital Visibility = 877
Exp. 7
Exp. 8, copy 1
Exp. 8, copy 2
Exp. 9, copy 1
Exp. 9, copy 2
Exp. 10, copy 1
Exp. 10, copy 2
Occultation
Home
GS Acq
Exp. 2
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16597, V-VZ-CHA-COS (2C), implementation Thu Apr 14 14:00:33 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 14-MAY-2022:00:00:00; GROUP 2C,2D,2E,2F,2S WITHIN 2D

Comments: vstatus; 2C; V-VZ-CHA; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; V-VZ-CHA 'V VZ Cha' ; COS ; DJS*
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 13

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	V-VZ-CHA	RA: 11 09 23.6760 (167.3486500d)	Proper Motion RA: -21.599074857508 mas/yr	V=12.94	Reference Frame: ICRS
	Alt Name1: T40	Dec: -76 23 20.86 (-76.38913d)	Proper Motion Dec: -0.33858656361 mas/yr	SpT=M0.5; A_V=1.20; U=12.7; V=12.9	
	Alt Name2: J11092379-7623207	Equinox: J2000	Parallax: 0.005232157973992"		
			Epoch of Position: 2016		

Comments: V-VZ-Cha : T40, J11092379-7623207
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=VZ+Cha&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
Input file: targets_up_to_May30-2022.csv
t40_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:12, 0.24
---
tstatus; V-VZ-CHA; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; V-VZ-CHA 'V VZ Cha'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527702)	(2) V-VZ-CHA	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				145 Secs (145 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527702*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.ta.1527704*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G160M/1589-3 (COS.sp.1527705)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=3650; FP-POS=3			1964 Secs (1964 Secs) *[==>]*	***[1]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1589,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=2864.1 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1589 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 89.9 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.8 A
Calculation performed 2021-06-18T15:05:08, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527705*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527708*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G160M/1589-4 (COS.sp.1527705)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G160M 1589 A	BUFFER-TIME=3650; FP-POS=4			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1589,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=2864.1 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1589 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 89.9 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.8 A
Calculation performed 2021-06-18T15:05:08, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527705*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527708*

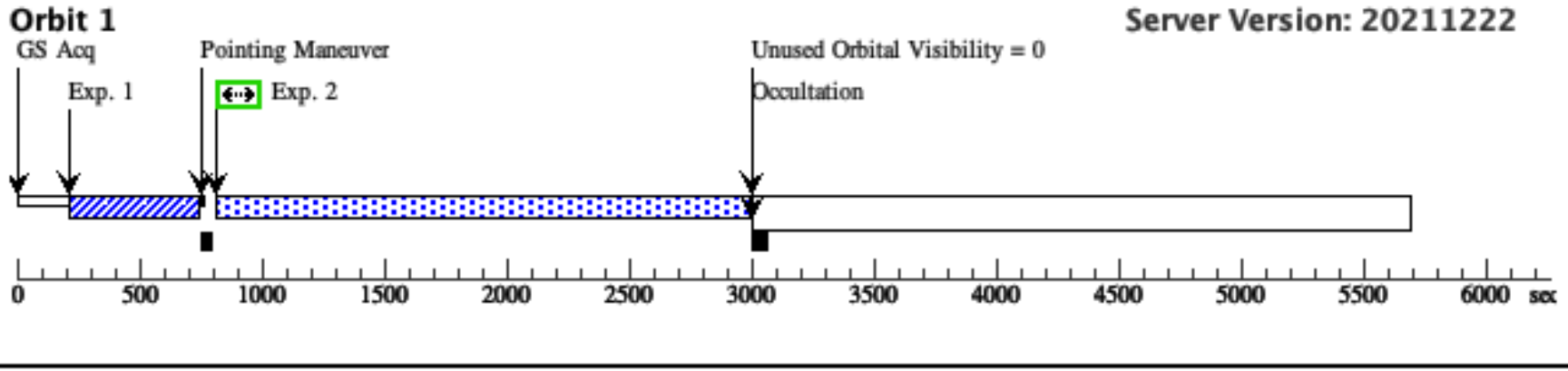
	4	G130M/129 1-3 (COS.sp.1527712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=3	2550 Secs (2550 Secs) *[==>]*

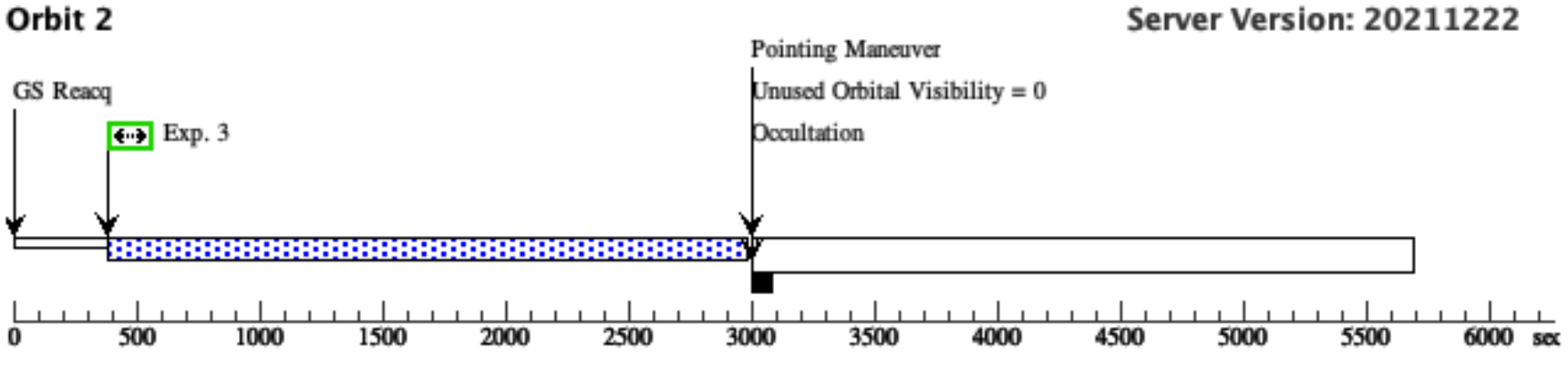
[3]

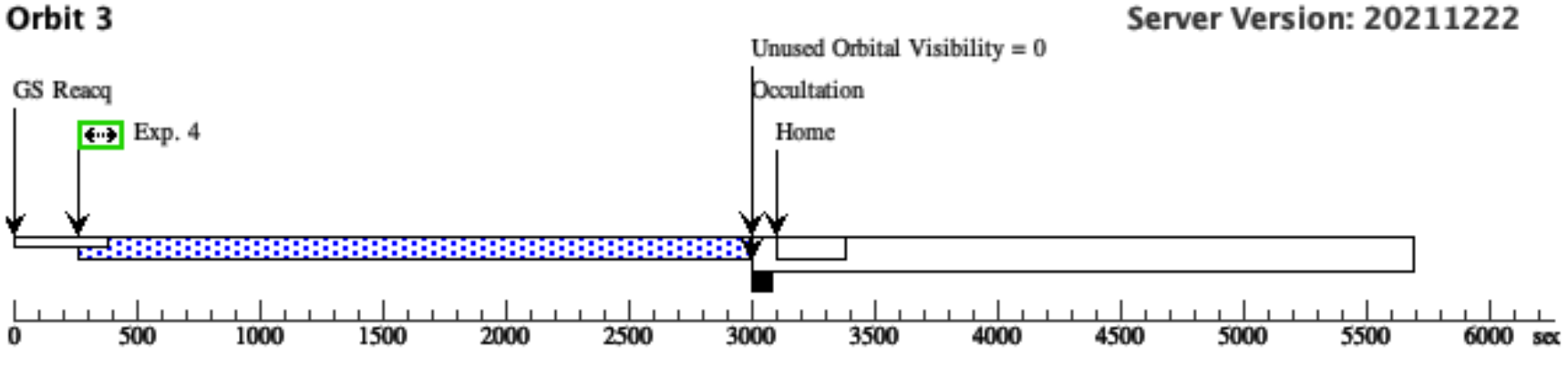
Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

Orbit Structure







Visit

Proposal 16597, V-VZ-CHA-COS (2D), implementation Thu Apr 14 14:00:33 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 14-MAY-2022:00:00:00

Comments: vstatus; 2D; V-VZ-CHA; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; V-VZ-CHA 'V VZ Cha' ; COS ; DJS*
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 13

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	V-VZ-CHA	RA: 11 09 23.6760 (167.3486500d)	Proper Motion RA: -21.599074857508 mas/yr	V=12.94	Reference Frame: ICRS
	Alt Name1: T40	Dec: -76 23 20.86 (-76.38913d)	Proper Motion Dec: -0.33858656361 mas/yr	SpT=M0.5; A_V=1.20; U=12.7; V=12.9	
	Alt Name2: J11092379-7623207	Equinox: J2000	Parallax: 0.005232157973992"		
			Epoch of Position: 2016		

Comments: V-VZ-Cha : T40, J11092379-7623207
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=VZ+Cha&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
Input file: targets_up_to_May30-2022.csv
t40_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:12, 0.24
---
tstatus; V-VZ-CHA; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; V-VZ-CHA 'V VZ Cha'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527702)	(2) V-VZ-CHA	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				145 Secs (145 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527702*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.ta.1527704*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G160M/1623-1 (COS.sp.1527710)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=3950; FP-POS=1			1954 Secs (1954 Secs) *[==>]*	***[1]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1623,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=2795.6 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1623 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 87.8 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1548.5 A
Calculation performed 2021-06-18T15:05:10, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527710*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527709*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G160M/1623-2 (COS.sp.1527710)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=3950; FP-POS=2			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g160m,c1623,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=2795.6 s, spectral region:
1549.0 +- 1.0 A achieves SNR=20.0 / 6-pix-resel for combined c1589 & c1623
The exptime for this c1623 exposure has been halved because c1589 & c1623 target the same line.
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 87.8 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1548.5 A
Calculation performed 2021-06-18T15:05:10, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527710*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527709*

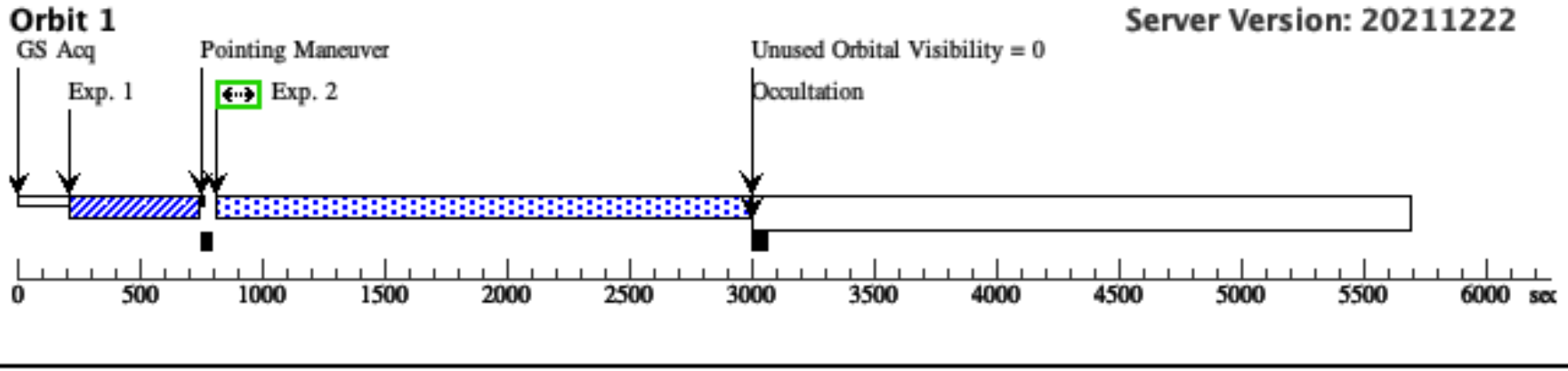
	4	G130M/129 1-4 (COS.sp.1527712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=4	2550 Secs (2550 Secs) *[==>]*

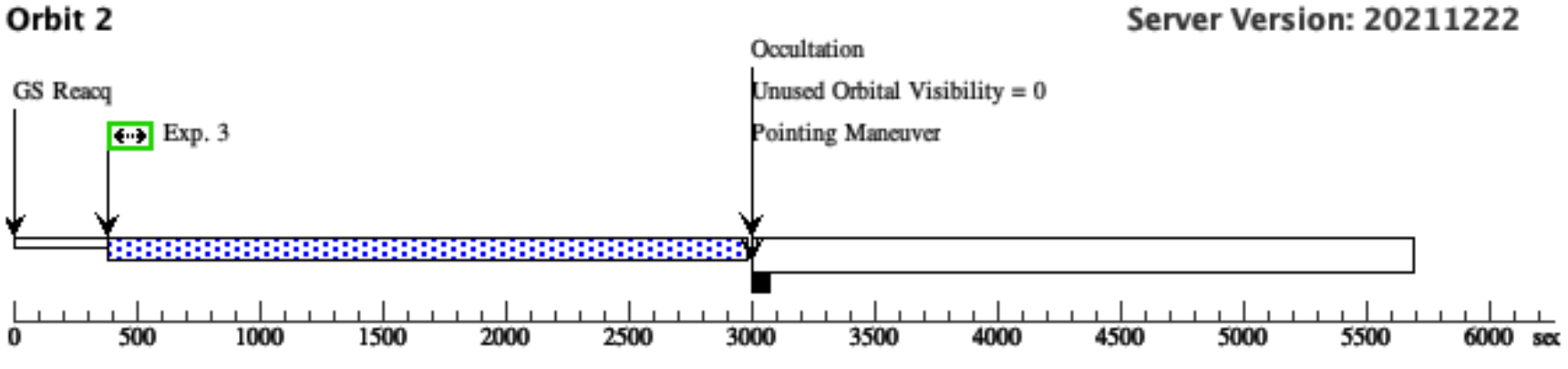
[3]

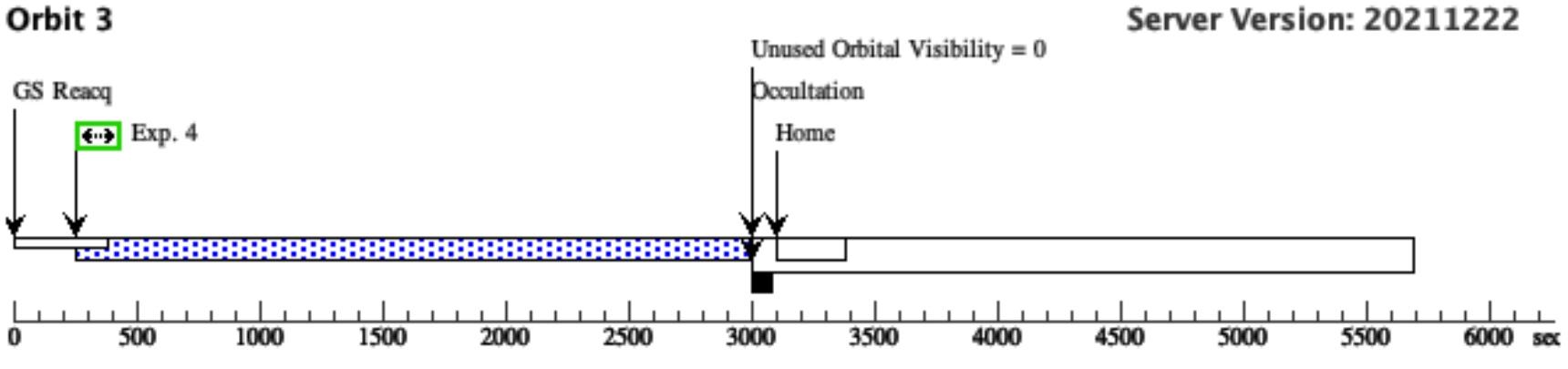
Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

Orbit Structure







Visit

Proposal 16597, V-VZ-CHA-COS (2E), implementation Thu Apr 14 14:00:33 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 14-MAY-2022:00:00:00

Comments: vstatus; 2E; V-VZ-CHA; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; V-VZ-CHA 'V VZ Cha' ; COS ; DJS*
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 13

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	V-VZ-CHA	RA: 11 09 23.6760 (167.3486500d)	Proper Motion RA: -21.599074857508 mas/yr	V=12.94	Reference Frame: ICRS
	Alt Name1: T40	Dec: -76 23 20.86 (-76.38913d)	Proper Motion Dec: -0.33858656361 mas/yr	SpT=M0.5; A_V=1.20; U=12.7; V=12.9	
	Alt Name2: J11092379-7623207	Equinox: J2000	Parallax: 0.005232157973992"		
			Epoch of Position: 2016		

Comments: V-VZ-Cha : T40, J11092379-7623207
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=VZ+Cha&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
Input file: targets_up_to_May30-2022.csv
t40_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:12, 0.24
---
tstatus; V-VZ-CHA; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; V-VZ-CHA 'V VZ Cha'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527702)	(2) V-VZ-CHA	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				145 Secs (145 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527702*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.ta.1527704*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G130M/1291 1-3 (COS.sp.1527712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=3			2012 Secs (2012 Secs) *[==>]*	***[1]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G130M/1291 1-3 (COS.sp.1527712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=3			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

4	G130M/129 1-3 (COS.sp.152 7712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=3	2552 Secs (2552 Secs) *[==>]*	***[3]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

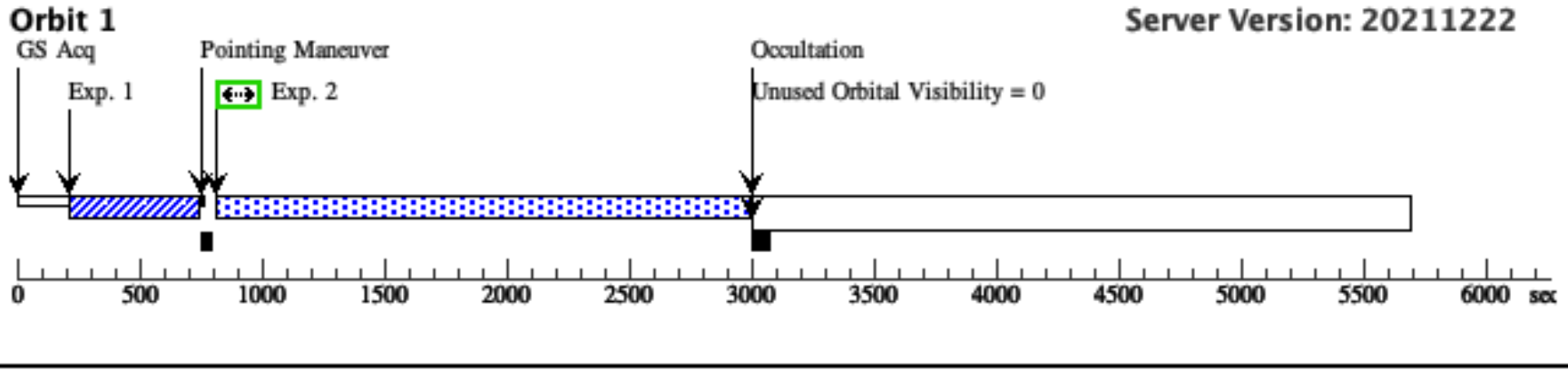
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

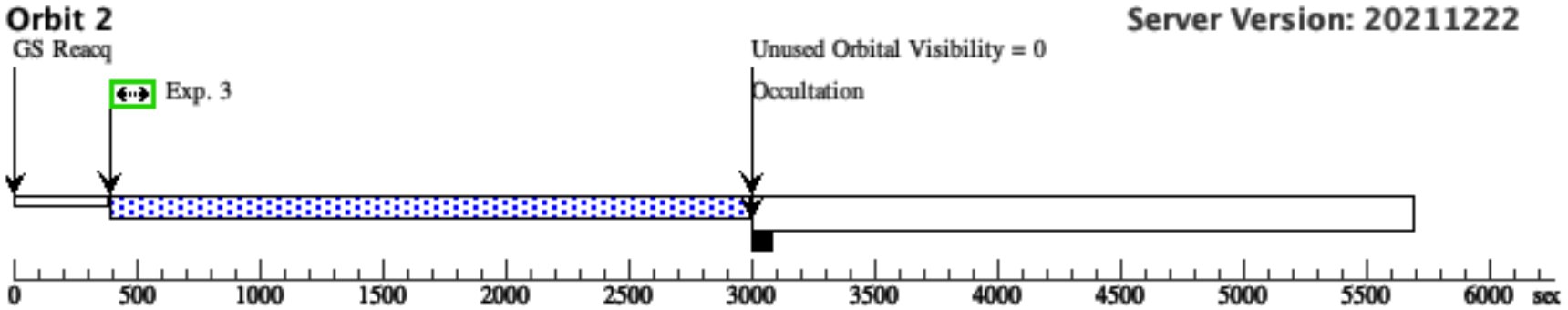
5	G130M/129 1-3 (COS.sp.152 7712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=3	2552 Secs (2552 Secs) *[==>]*	***[4]***

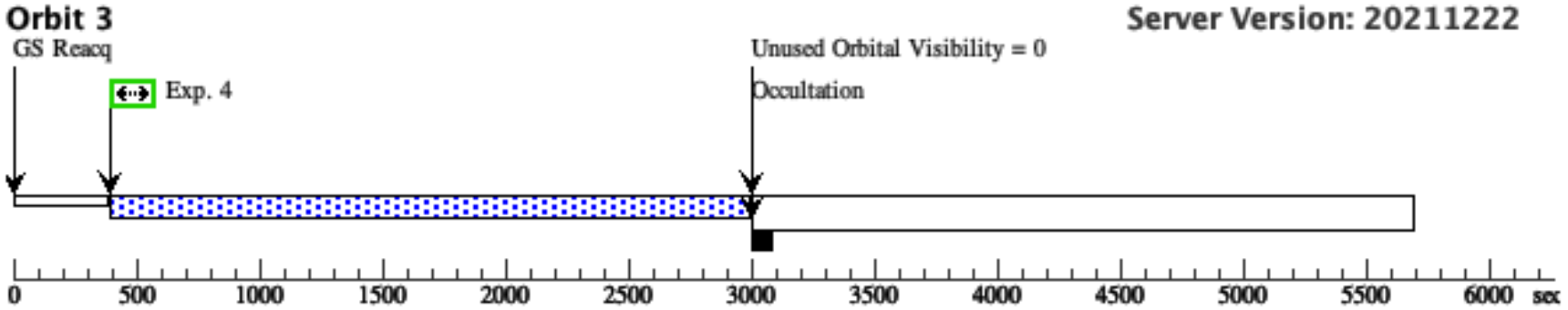
Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

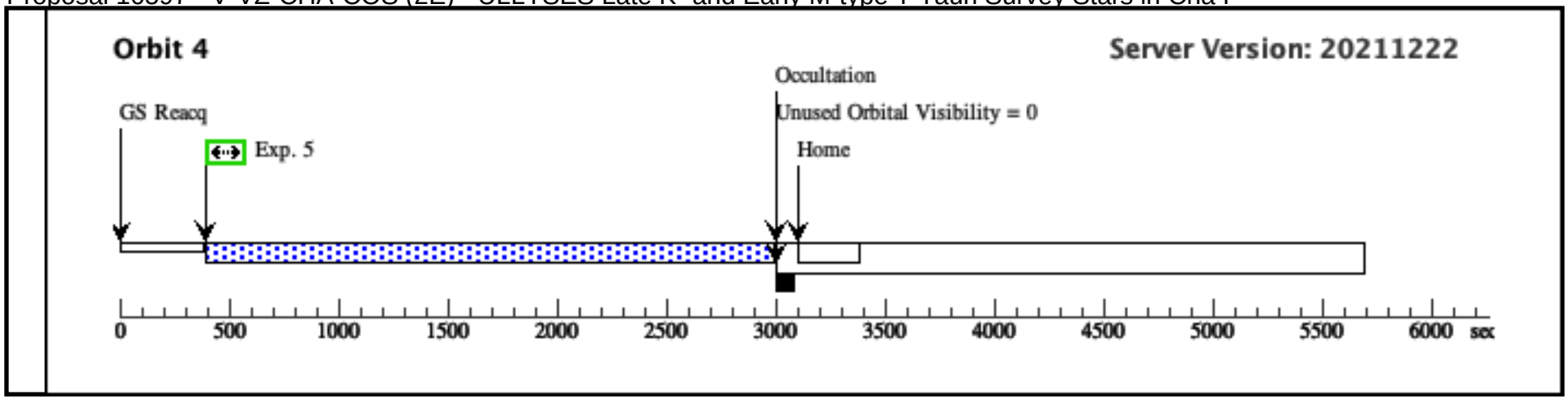
The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

Orbit Structure








Orbit 4
Server Version: 20211222
Occultation
GS Reacq
Unused Orbital Visibility = 0
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16597, V-VZ-CHA-COS (2F), implementation Thu Apr 14 14:00:33 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 14-MAY-2022:00:00:00

Comments: vstatus; 2F; V-VZ-CHA; P/COS approved for submission; P/DJS 02/08/21 ; intrev: complete ; P/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; V-VZ-CHA 'V VZ Cha' ; COS ; DJS*
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 13

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	V-VZ-CHA	RA: 11 09 23.6760 (167.3486500d)	Proper Motion RA: -21.599074857508 mas/yr	V=12.94	Reference Frame: ICRS
	Alt Name1: T40	Dec: -76 23 20.86 (-76.38913d)	Proper Motion Dec: -0.33858656361 mas/yr	SpT=M0.5; A_V=1.20; U=12.7; V=12.9	
	Alt Name2: J11092379-7623207	Equinox: J2000	Parallax: 0.005232157973992"		
			Epoch of Position: 2016		

Comments: V-VZ-Cha : T40, J11092379-7623207
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=VZ+Cha&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
Input file: targets_up_to_May30-2022.csv
t40_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:12, 0.24
---
tstatus; V-VZ-CHA; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; V-VZ-CHA 'V VZ Cha'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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/Image (COS.ta.1527702)	(2) V-VZ-CHA	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				145 Secs (145 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.ta.1527702*
** For BOP, a template with 4x the flux and no additional extinction was used: COS.ta.1527704*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G130M/1291-4 (COS.sp.1527712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=4			2012 Secs (2012 Secs) *[==>]*	***[1]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G130M/1291-4 (COS.sp.1527712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=4			2552 Secs (2552 Secs) *[==>]*	***[2]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

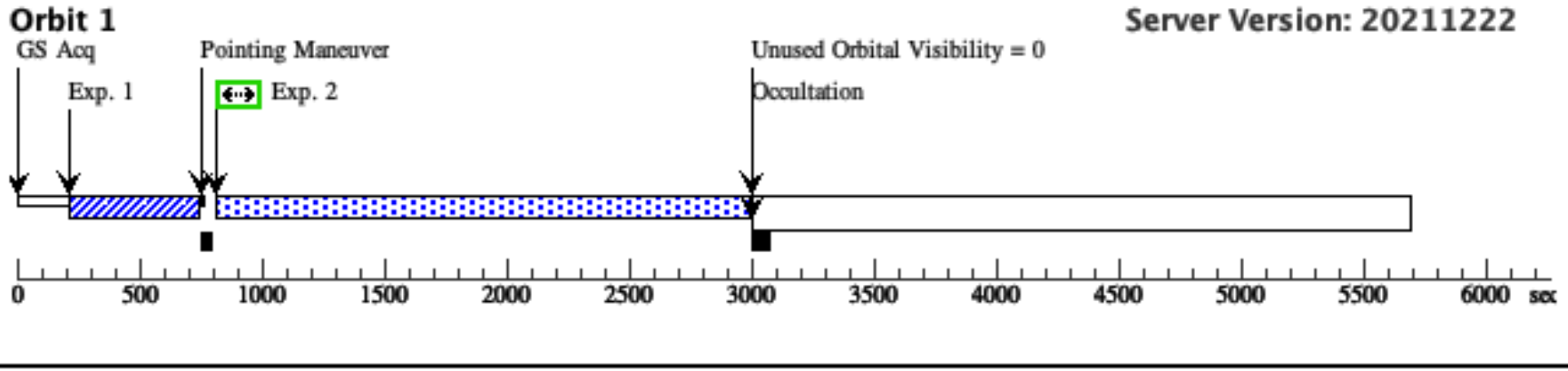
	4	G130M/129 1-4 (COS.sp.1527712)	(2) V-VZ-CHA	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3300; FP-POS=4	2552 Secs (2552 Secs) *[==>]*

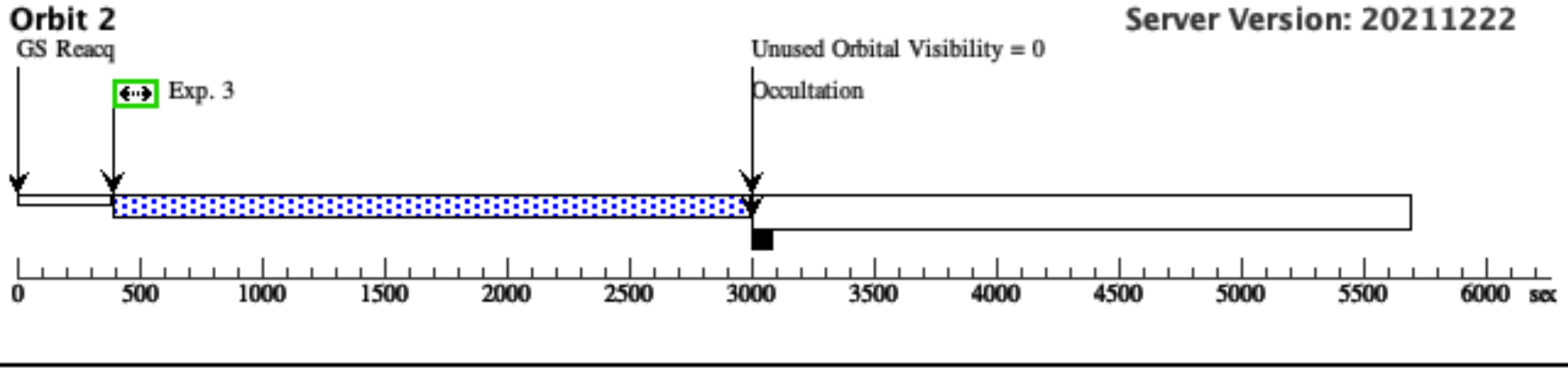
[3]

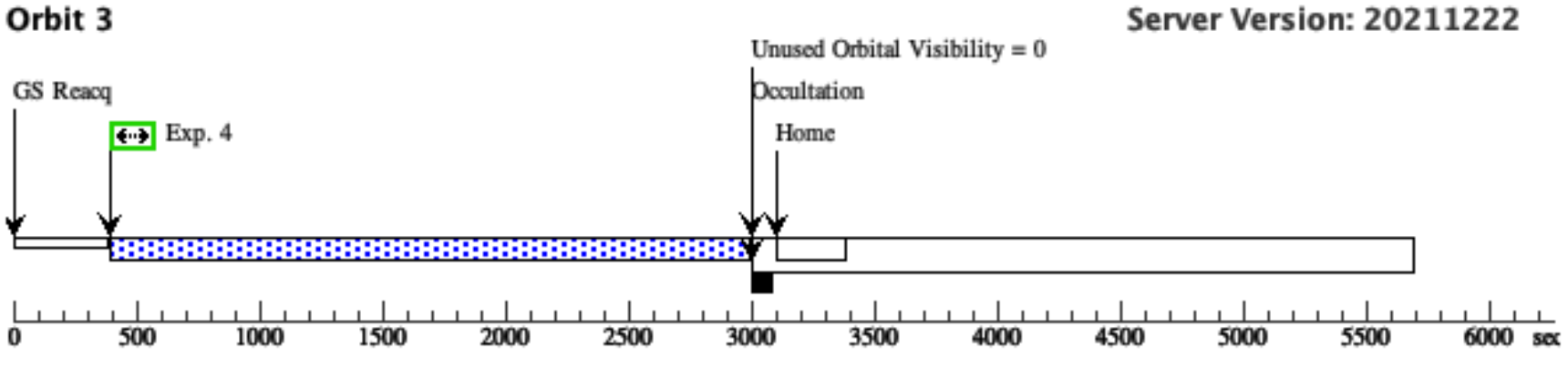
Comments: t40_lya2_etc_scaled_pAV0.50.txt; cos,fuv,g130m,c1291,psa,mjd#59670; fp-pos=None, segment=None)
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=11358.9 s, spectral region:
1239.0 +- 1.0 A achieves SNR=10.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 294.4 cts/s/segment
brightest pixel: 0.002 cts/s/pix at 1402.7 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: COS.sp.1527712*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: COS.sp.1527713*

Orbit Structure







Visit

Proposal 16597, V-VZ-CHA-STIS (2S), implementation Thu Apr 14 14:00:33 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: SCHED 100%; BETWEEN 24-JAN-2022:00:00:00 AND 14-MAY-2022:00:00:00

Comments: vstatus; 2S; V-VZ-CHA; P/STIS approved for submission; P/DJS 02/08/21 ; intrev: complete ; S/RS 29/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; V-VZ-CHA 'V VZ Cha' ; STIS ; DJS*
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None
vcheck; M-dwarf check complete and added to box folder?; N/A
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; N/A
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; N/A
vcheck; Verify visit grouping correct; N/A
vcheck; phase constraint for ground based observations added?; N/A
vcheck; BETWEENS for coordinated observations added?; N/A
vcheck; Is visit ready for int. review?; yes
Allocated STIS orbits = 1

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	V-VZ-CHA	RA: 11 09 23.6760 (167.3486500d)	Proper Motion RA: -21.599074857508 mas/yr	V=12.94	Reference Frame: ICRS
	Alt Name1: T40	Dec: -76 23 20.86 (-76.38913d)	Proper Motion Dec: -0.33858656361 mas/yr	SpT=M0.5; A_V=1.20; U=12.7; V=12.9	
	Alt Name2: J11092379-7623207	Equinox: J2000	Parallax: 0.005232157973992"		
			Epoch of Position: 2016		

Comments: V-VZ-Cha : T40, J11092379-7623207
Region: Cha I
Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=VZ+Cha&NbIdent=1&Radius=2&Radius.unit=arcmin&submit=submit+id
Target coordinates are from Gaia DR2.
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
Input file: targets_up_to_May30-2022.csv
t40_lya2_etc_scaled_pAV0.50.txt
Calculation performed 2021-06-18T15:05:12, 0.24
---
tstatus; V-VZ-CHA; P/COS approved for submission; S/STIS approved for submission; P/DJS 02/08/21; S/DJS 02/08/21
tcheck; APT/SIMBAD target names: ; V-VZ-CHA 'V VZ Cha'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Changed to 2016 from 2015.5
tcheck; Adopted SED compared to Observations?; N/A
Category=STAR
Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]
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 (STIS.ta.1527761)	(2) V-VZ-CHA	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	***[1]***

Comments: ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: STIS.ta.1527761*
** For saturation, a template with 4x the flux and no additional extinction was used: STIS.ta.1527762*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	G230L/2376 (STIS.sp.1527764)	(2) V-VZ-CHA	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	WAVECAL=NO; BUFFER-TIME=517.0			264 Secs (264 Secs) *[==>]*	***[1]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; stis,nuvmama,g230l,c2376,52x2,mjd#59670
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=39.1 s, spectral region:
2800.0 +- 15.0 A achieves SNR=20.0 / 2-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 3092.2 cts/s/segment
brightest pixel: 2.076 cts/s/pix at 2801.6 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: STIS.sp.1527764*
** For BUFFER-TIME and BOP, a template with 4x the flux and no additional extinction was used: STIS.sp.1527765*

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G230L/2376 WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A				*[==>]*	***[1]***

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
4	G430L/4300 WAVECAL	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A				*[==>]*	***[1]***

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
5	G430L/4300 (STIS.sp.1527766)	(2) V-VZ-CHA	STIS/CCD, ACCUM, 52X2	G430L 4300 A	WAVECAL=NO; CR-SPLIT=2; GAIN=1			14 Secs (14 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***

Comments: t40_lya2_etc_scaled_pAV0.50.txt; stis,ccd,g430l,c4300,52x2,mjd#59670
WARNING: operating mode = ACCUM
Input file: targets_up_to_May30-2022.csv
Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160
M: 0.49 ; log(dm/dt): -7.33*
For exptime=7.3 s, n_reads=2, spectral region:
4000.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 76927.2 cts/s/segment
brightest pixel: 58.571 cts/s/pix at 5178.8 A
Calculation performed 2021-06-18T15:05:12, v0.24

The text above was done for the initial calculation of exposure times and is from the original .prop file.
ETC runs were done for two cases:
** For exposure time, a template with an extra A_V of 0.5 were used: STIS.sp.1527766*
** For saturation, a template with 4x the flux and no additional extinction was used: STIS.sp.1527768*

	6	G750L/7751 (2) V-VZ-CHA (STIS.sp.15 27770)	STIS/CCD, ACCUM, 52X2	G750L 7751 A	WAVECAL=NO; CR-SPLIT=2; GAIN=1	4.2 Secs (4.2 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
		Comments: t40_lya2_etc_scaled_pAV0.50.txt; stis,ccd,g750l,c7751,52x2,mjd#59670 *WARNING: operating mode = ACCUM* *Input file: targets_up_to_May30-2022.csv* *Spectral type: M0.5 ; A_V: 1.2 ; Distance (pc): 160* *M*: 0.49 ; log(dm/dt): -7.33* *For exptime=2.1 s, n_reads=2, spectral region:* *5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel* *A factor of 2.0 has been applied to the exptime in each exposure.* *global countrate (brightest segment): 215247.3 cts/s/segment* *brightest pixel: 449.129 cts/s/pix at 6563.9 A* *Calculation performed 2021-06-18T15:05:12, v0.24* --- *The text above was done for the initial calculation of exposure times and is from the original .prop file.* *ETC runs were done for two cases:* ** For exposure time, a template with an extra A_V of 0.5 were used: STIS.sp.1527770* ** For saturation, a template with 4x the flux and no additional extinction was used: STIS.sp.1527772*					
	7	G750L/7751 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		*[==>]*	***[1]***
	8	G750L/7751 CCDFLAT CCDFLAT 1	STIS/CCD, ACCUM, 0.3X0.09	G750L 7751 A		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
	9	G750L/7751 CCDFLAT CCDFLAT 2	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
	10	G750L/7751 CCDFLAT CCDFLAT 3	STIS/CCD, ACCUM, 52X2	G750L 7751 A		*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure