16107 - ULLYSES Monitoring Observations of the T Tauri Star BP Tau: First Epoch

Cycle: 28, 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) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:23.0	yes
1D	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:24.0	yes
1E	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:25.0	yes
1F	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:27.0	yes
1G	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:28.0	yes
1H	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:29.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
1I	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:31.0	yes
1J	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:32.0	yes
1K	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:33.0	yes
1L	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:35.0	yes
1M	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:36.0	yes
1N	(1) V-BP-TAU	COS/FUV COS/NUV	1	26-May-2021 17:00:37.0	yes

12 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 ~165 OB stars in the Magellanic Clouds and lower metallicity galaxies in the Local Group, and ~67 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

Observations use COS NUV + FUV and all visits are single orbit with SCHED=100.

This target will be in the XMM field of view and for the purpose of coordinated obsrvations this version sets the BETWEEN for all visits to be from 2021-Aug-10 20:21 to 2021-Aug-24 13:38.

The rotation period of the target is about 8.19 days =124 orbits. We want to schedule 4 visits/period over three consecutive rotation periods, but we don't care about zero point shifts in the whole pattern.
Therefore, the ideal visit spacing would be 31 orbits.

If we allow windows that are multiples of 31.0 +/-5.1 orbits after visit 1C the required AFTER BY orbit values are as follows:

Visit	1 D	1 E	1 F	1 G	1 H	1 I	1J	1 K	1 L	1M	1N
Start	25.9	56.9	87.9	118.9	149.9	180.9	212.0	243.0	274.0	305.0	336.0
End	36.1	67.1	98.1	129.1	160.1	191.1	222.2	253.2	284.2	315.2	346.2

Visit

Proposal 16107, Visit 1C, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

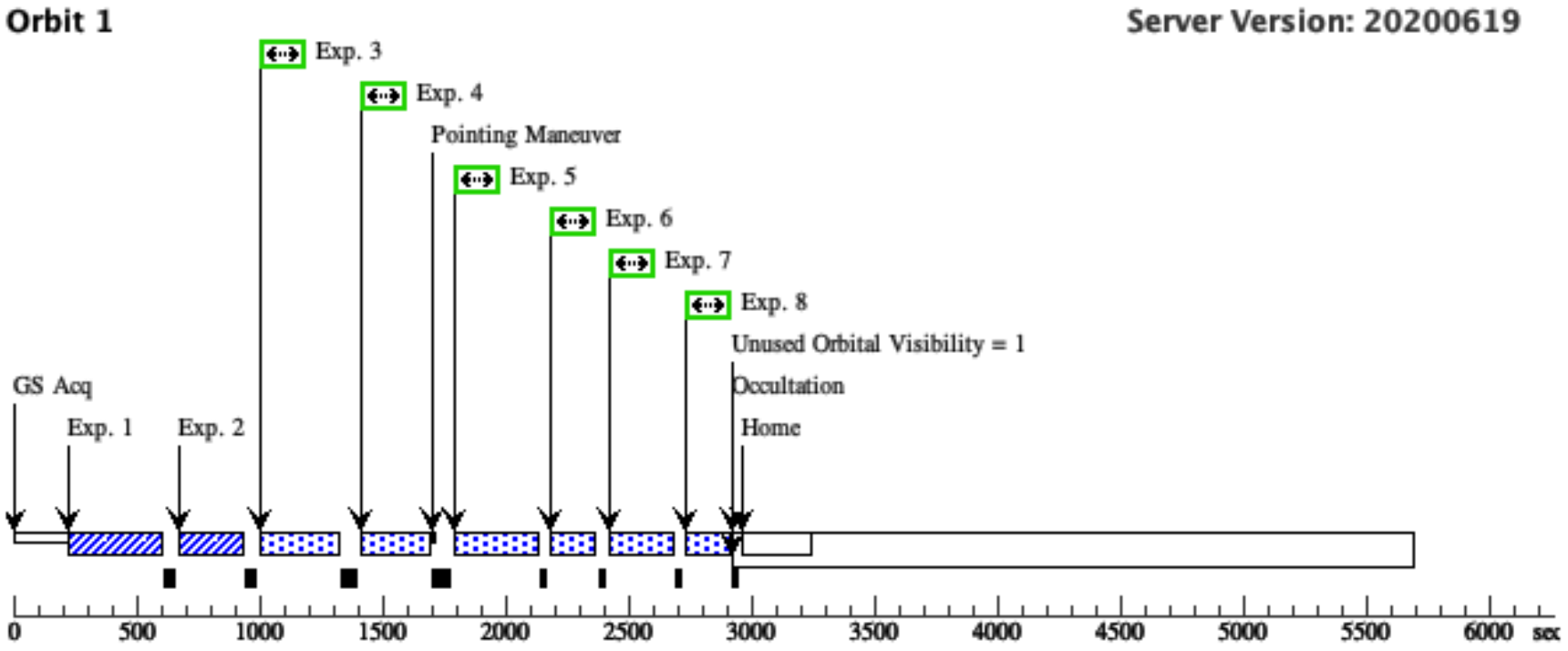
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1D, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 25.9 Orbits TO 36.1 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS ready for internal review; P/DJS 23/05/21 ; intrev: in progress ; P/CP 24/05/21
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

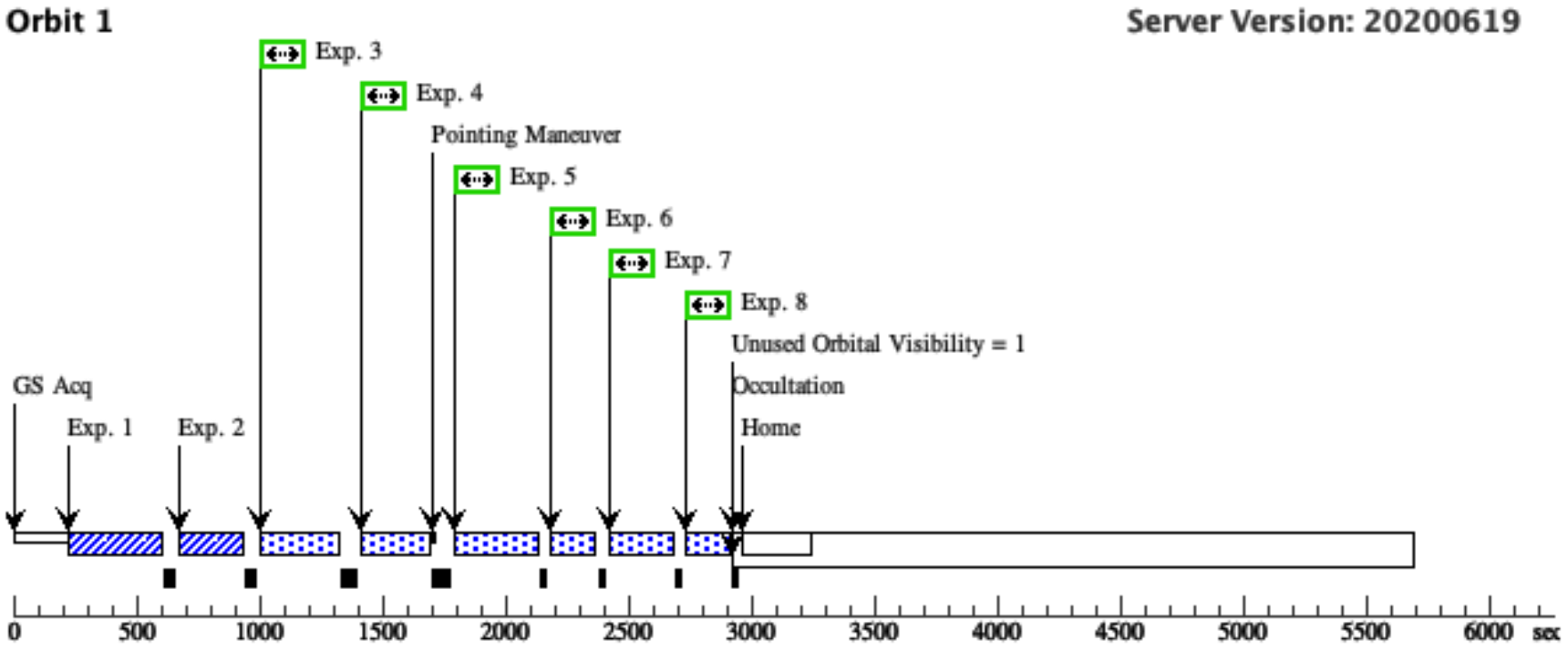
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1E, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 56.9 Orbits TO 67.1 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

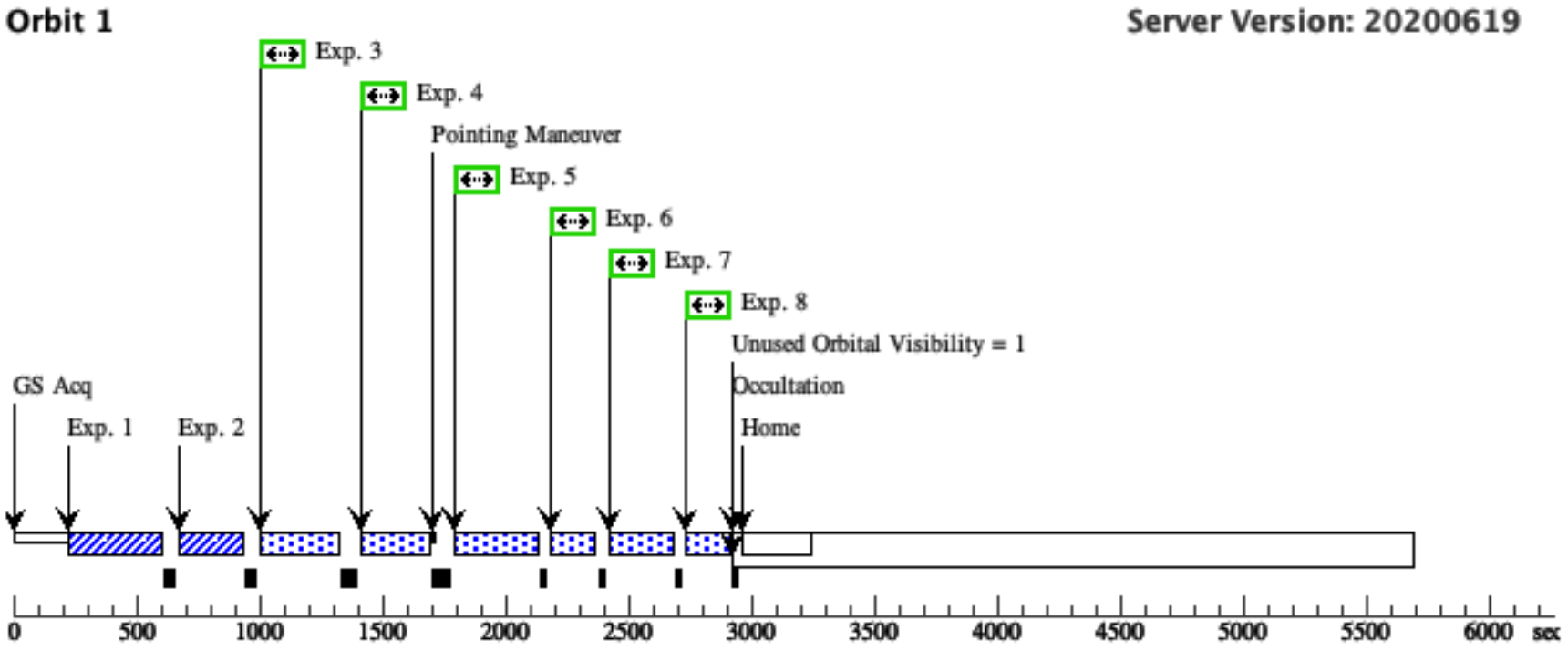
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1F, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 87.9 Orbits TO 98.1 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

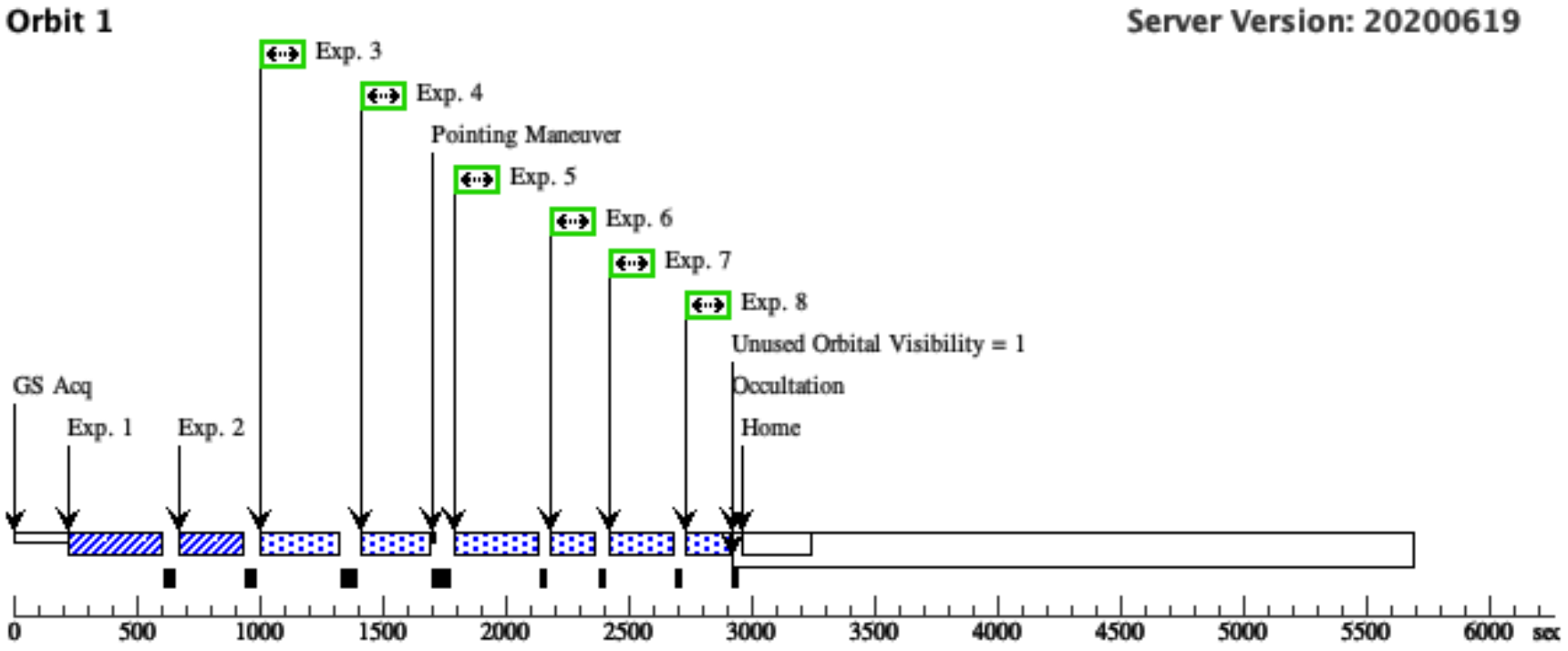
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1G, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 118.9 Orbits TO 129.1 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/251
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

	7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

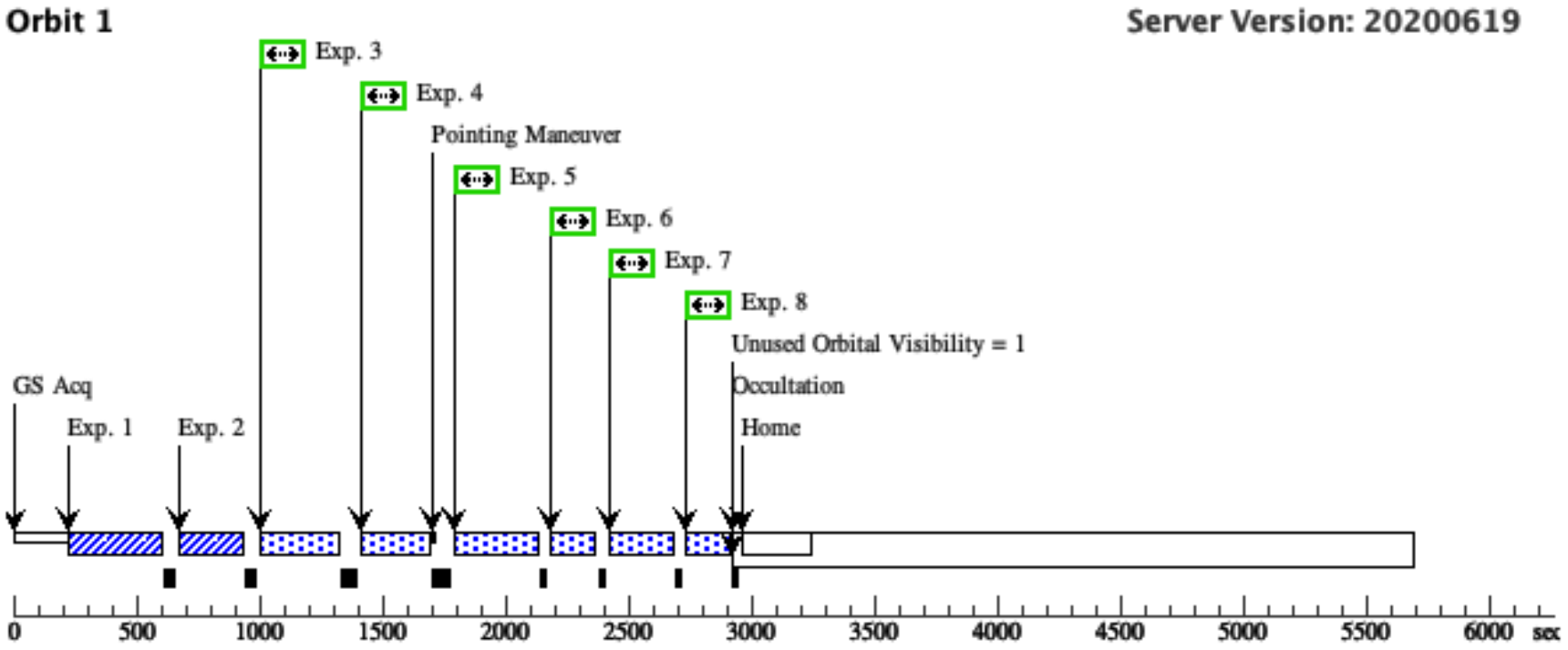
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1H, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 149.9 Orbits TO 160.1 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

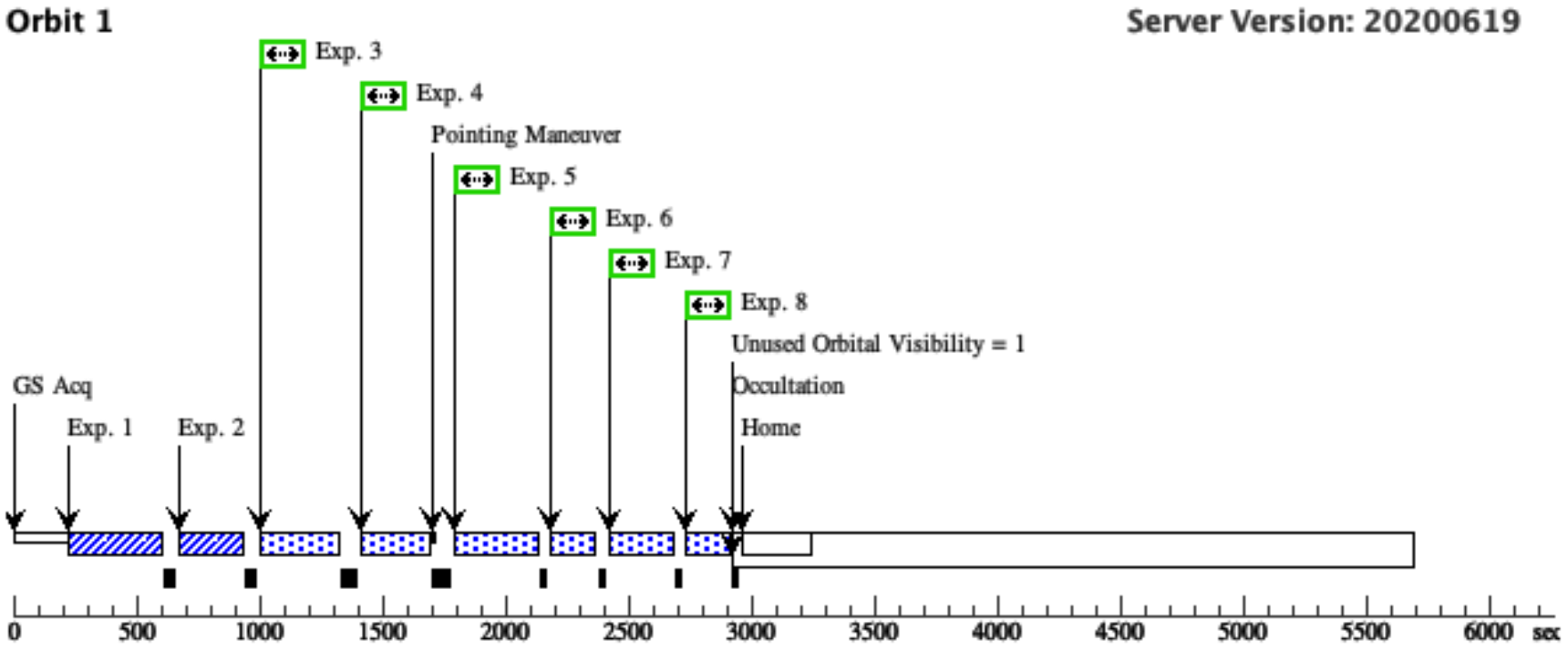
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1I, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 180.9 Orbits TO 191.1 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

	7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

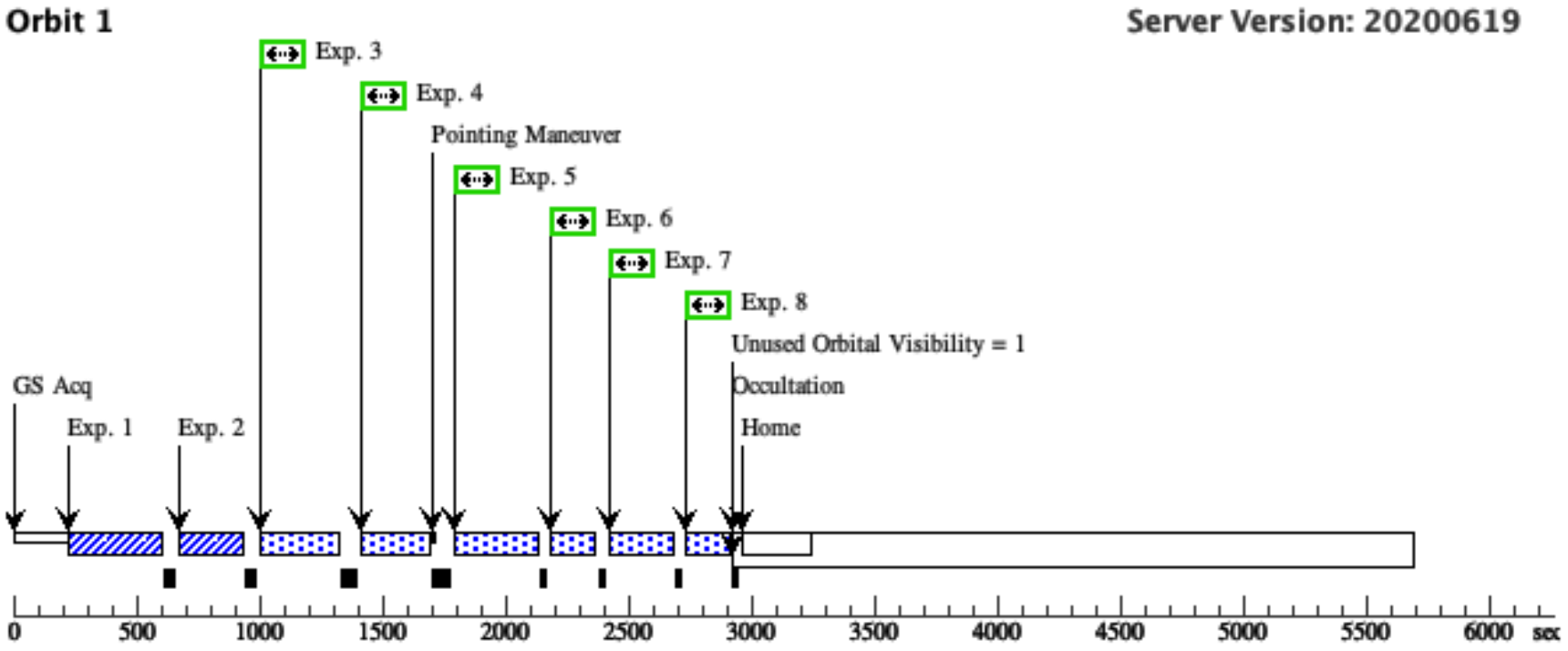
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1J, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 212.0 Orbits TO 222.2 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

	7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

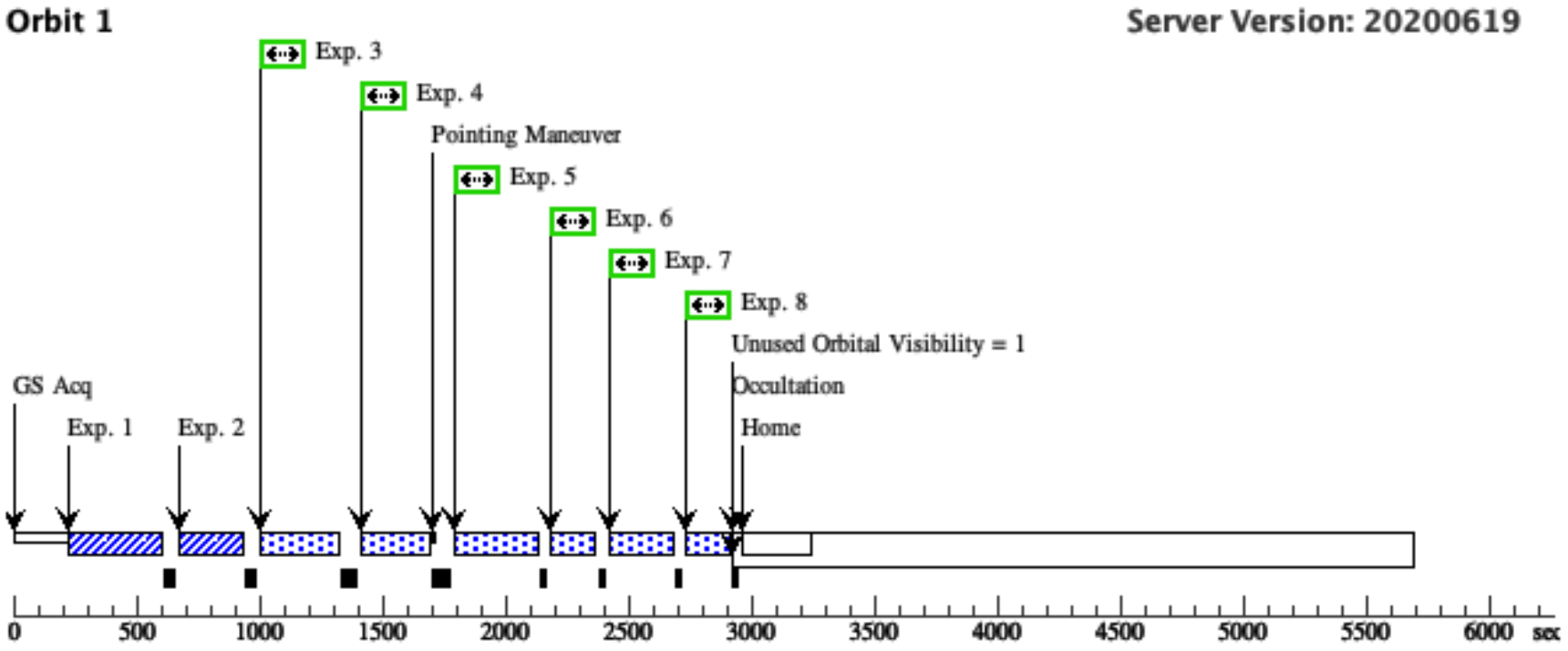
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1K, implementation Wed May 26 21:00:38 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 243.0 Orbits TO 253.2 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

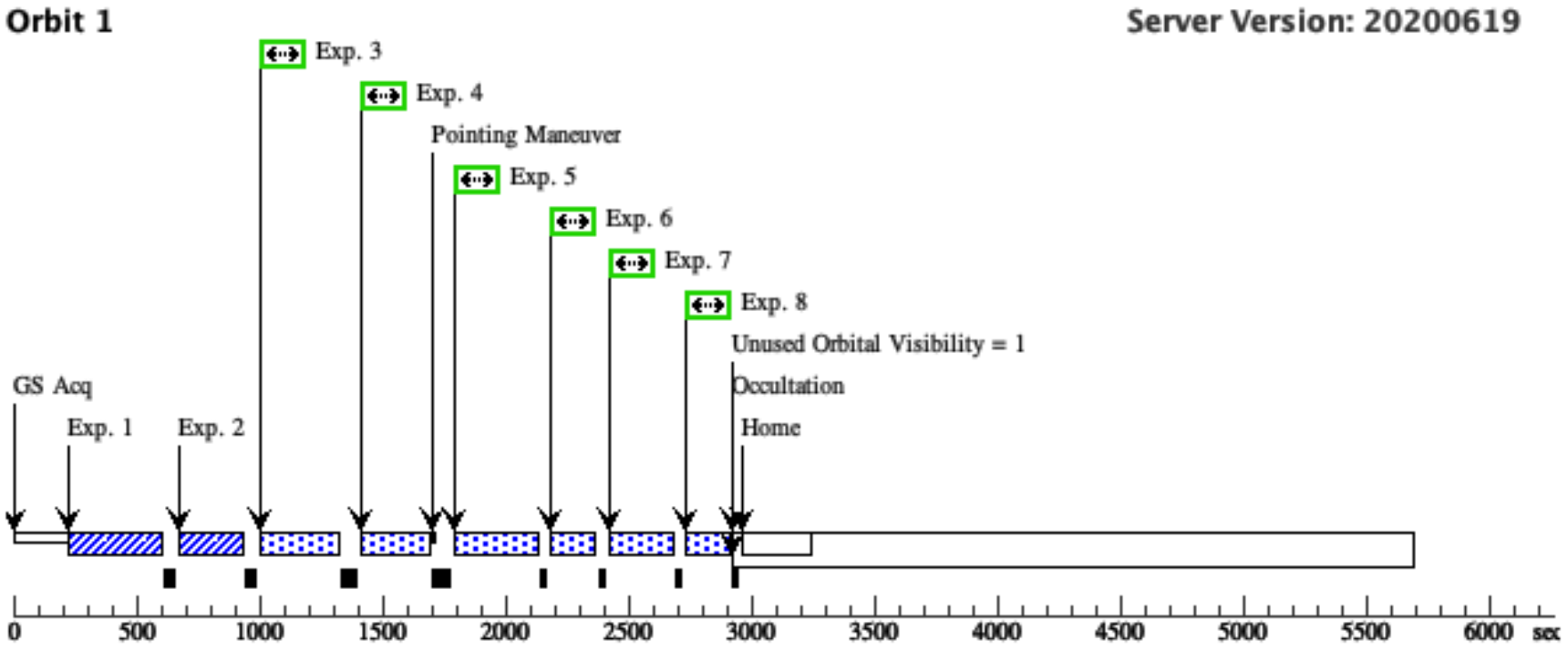
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>]	[1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1L, implementation Wed May 26 21:00:39 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 274.0 Orbits TO 284.2 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

	7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

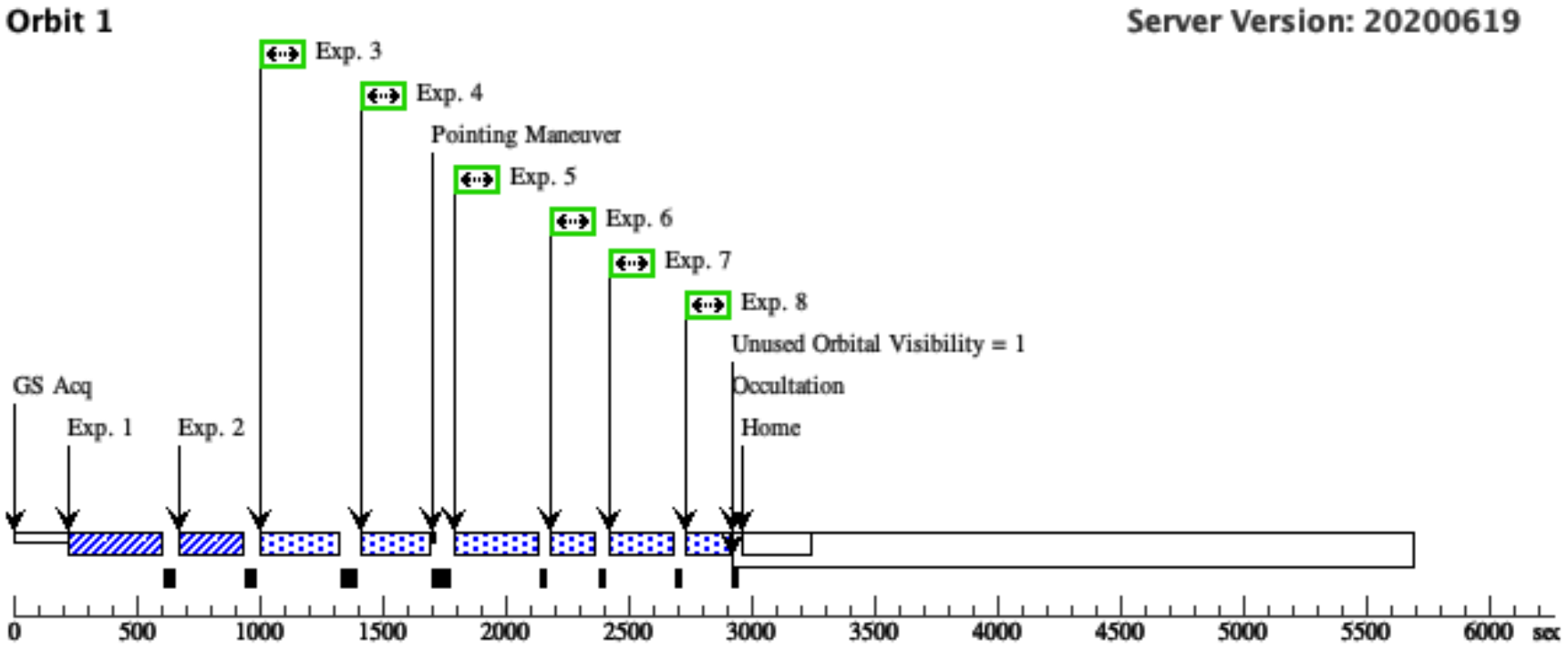
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.

Orbit Structure



Visit

Proposal 16107, Visit 1M, implementation Wed May 26 21:00:39 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 305.0 Orbits TO 315.2 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

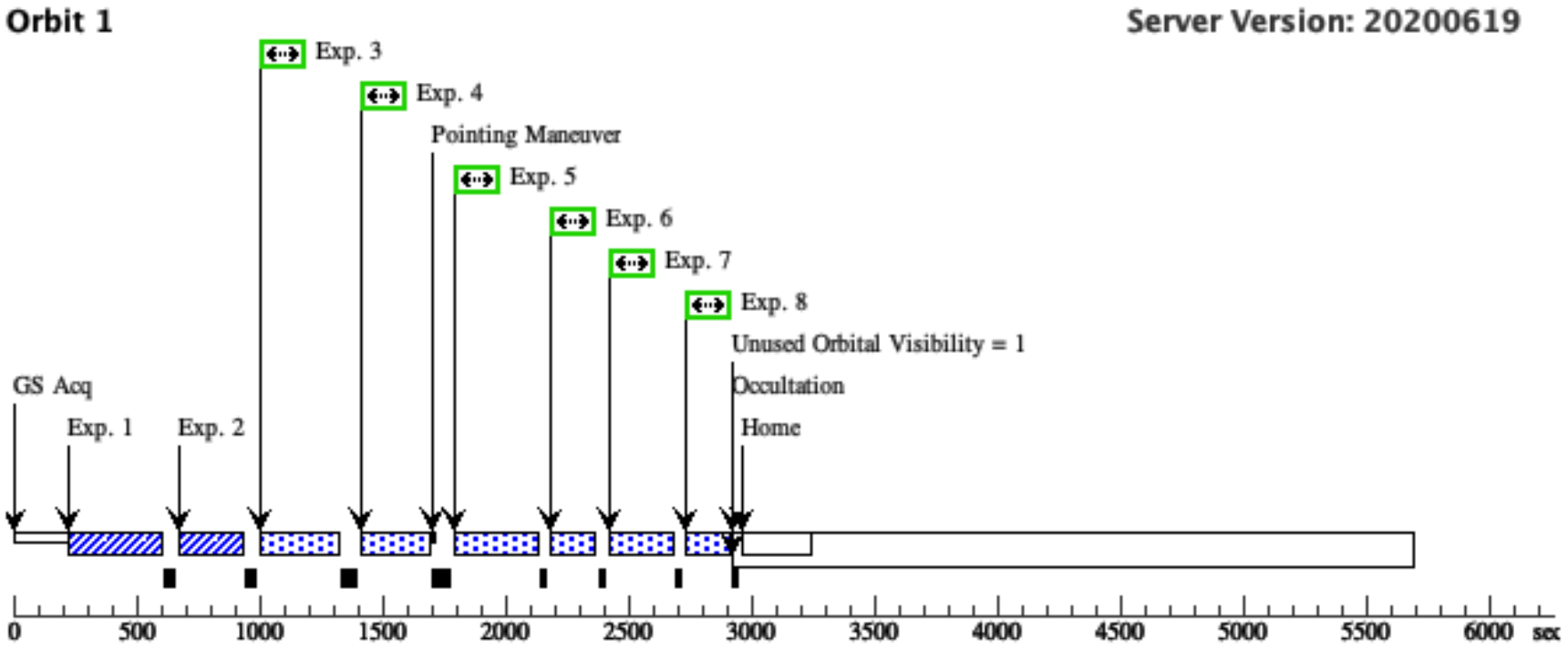
6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

	7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]
		Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.					
		Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.					
	8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]
		Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.					
		Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/3 of this value.					

Orbit Structure



Visit

Proposal 16107, Visit 1N, implementation Wed May 26 21:00:39 GMT 2021

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 336.0 Orbits TO 346.2 Orbits; BETWEEN 10-AUG-2021 AND 28-SEP-2021

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/DJS 23/05/21 ; intrev: complete ; P/CP 24/05/25
vcheck; Enter targ name & Inst. & Resp. Sci.; BP Tau ; COS ; DJS
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
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?; Double ACQ/IMAGE
vcheck; Possible ACQ or Sci spoilers?; no
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; yes
vcheck; phase constraint for ground based observations added?; yes
vcheck; BETWEENS for coordinated observations added?; yes
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 12

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-BP-TAU	RA: 04 19 15.8445 (64.8160187d)	Proper Motion RA: 8.627 mas/yr	V=12.12	Reference Frame: ICRS
		Dec: +29 06 26.52 (29.10737d)	Proper Motion Dec: -26.177 mas/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
---
tstatus; V-BP-TAU; P/COS approved for submission; S/ins not started; P/DJS 23/05/21; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; V-BP-TAU 'V BP Tau'*
tcheck; Target info verification status?; OK
tcheck; Coordinates & P.M. verified, epoch checked?; Yes - Gaia coords - PM updated from Gaia
tcheck; Adopted SED compared to Observations?; yes
Category=STAR
Description=[EMISSION LINE STAR, PRE-MAIN SEQUENCE STAR, T TAURI 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 1 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the first of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

2	ACQ/IMAGE 2 (COS.ta.1517412)	(1) V-BP-TAU	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				76 Secs (76 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. ACQ/IMAGE with BOA and MIRRORA takes 38 seconds for S/N=30

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. ACQ/IMAGE with BOA and MIRRORA has peak pixel rate of 13.2 cps and global rate of 1380, so it is safe

This is the second of two ACQ/IMAGES used in order to improve the likelihood of a successful acquisition.

3	G230L/2950 (COS.sp.1517415)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 189 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.9 cps and global rate of 4409, so it is safe. Buffer fill time = 535 and 2/3 of this is 357.

4	G230L/2635 (COS.sp.1517417)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			196 Secs (196 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 190 second exposure required to get S/N=20 at 2825 A. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 10.8 cps and global rate of 5266, so it is safe. Buffer fill time = 447 and 2/3 of this is 298.

5	G160M/1589 FP-POS=3 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 908, so it is safe. Buffer Fill Time = 2597, so BUFFER-TIME set to 2/3 of this value.

6	G160M/1589 FP-POS=4 (COS.sp.1517421)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			128 Secs (128 Secs) *[==>]*	***[1]***

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 195 second exposure required to get S/N=30 at 1548.4 A, the peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

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	7	G160M/162 3 FP-POS=1 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.151 7423)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	128 Secs (128 Secs) [==>] [1]

Comments: Used model spectrum bptau_lya2_etc.txt in the ETC in order to determine exposure times. This is the one listed as the ETC run for the exposure. 197 second exposure required to get S/N=30 at 1548.4 A, th e peak of the C IV line. But this can be divided between the FP-POSs. Exposure time expanded to fill orbit.

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Orbit Structure