16589 - ULLYSES Monitoring Observations of the T Tauri Star BP Tau: Second Epoch

Cycle: 29, Proposal Category: GO/DD

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
1C	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:23.0	yes
1D	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:24.0	yes
1E	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:25.0	yes
1F	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:26.0	yes
1G	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:28.0	yes
AG	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:29.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
1H	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:30.0	yes
1I	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:31.0	yes
1J	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:33.0	yes
1K	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:34.0	yes
1L	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:36.0	yes
1M	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:37.0	yes
1N	(1) V-BP-TAU	COS/FUV COS/NUV	1	23-Dec-2022 12:00:38.0	yes

13 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 observed by TESS in Sector 59, which runs from 2022-Nov-26 to 2022-Dec-23. For the purpose of coordinated observations, this version sets the BETWEEN for all visits to be from 2022-Nov-26 to 2023-Jan-31. The target should be scheduled as early in this window as possible. This window will be refined when more detailed information about the timing of TESS observations is available.

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 16589, Visit 1C, completed Fri Dec 23 17:00:38 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1C) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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.

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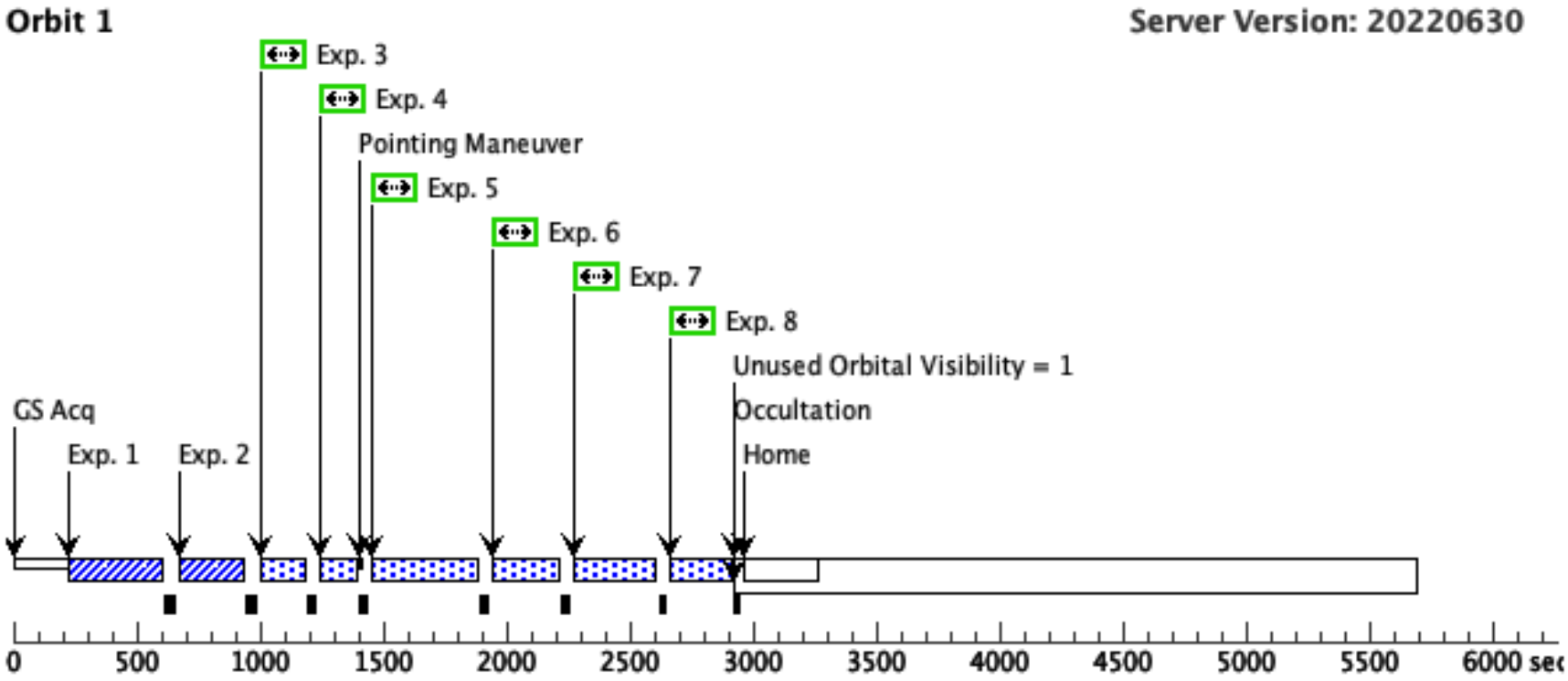
Orbit Structure



Visit

Proposal 16589, Visit 1D, completed Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 25.9 Orbits TO 36.1 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS ready for internal review; P/JRD 21/07/21 ; intrev: in progress ; P/WF 29/07/21
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

Diagnostics

(Visit 1D) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

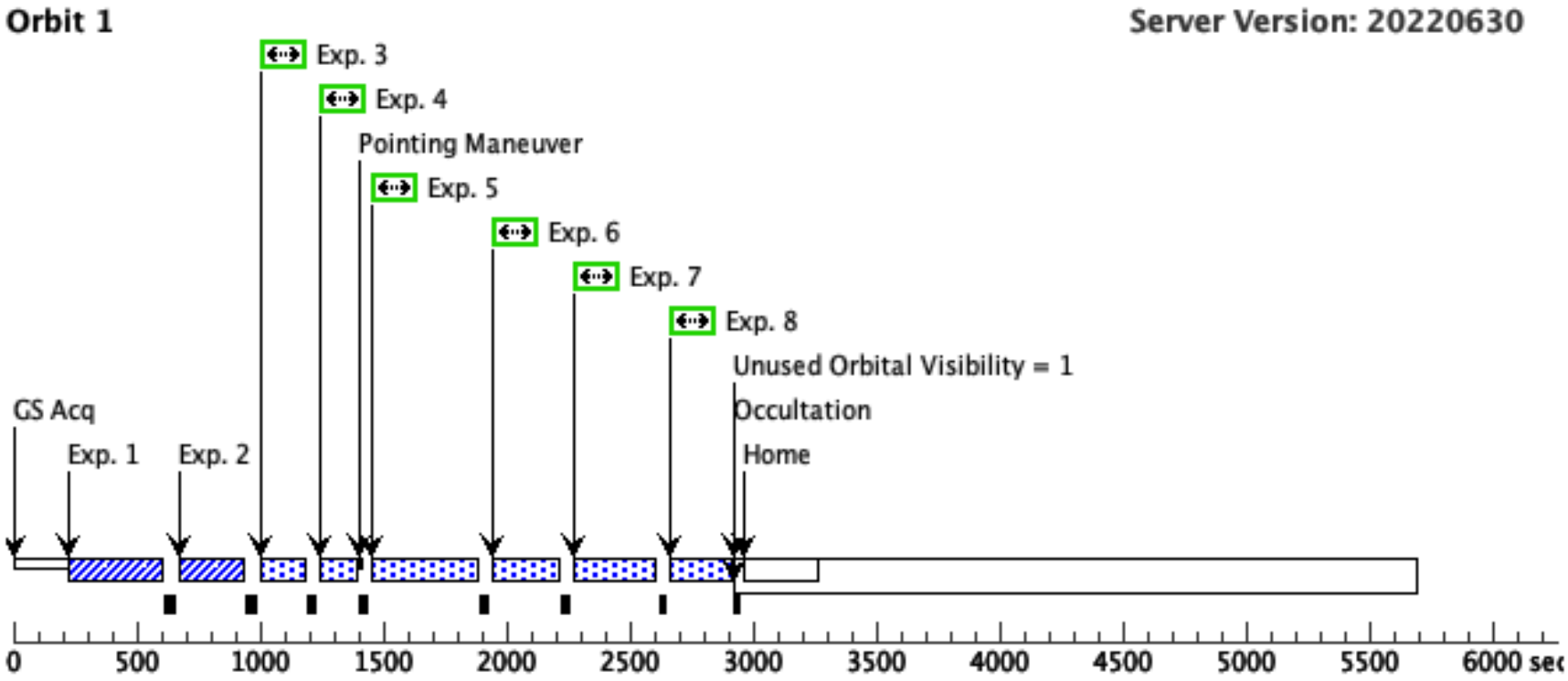
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1E, completed Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 56.9 Orbits TO 67.1 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1E) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

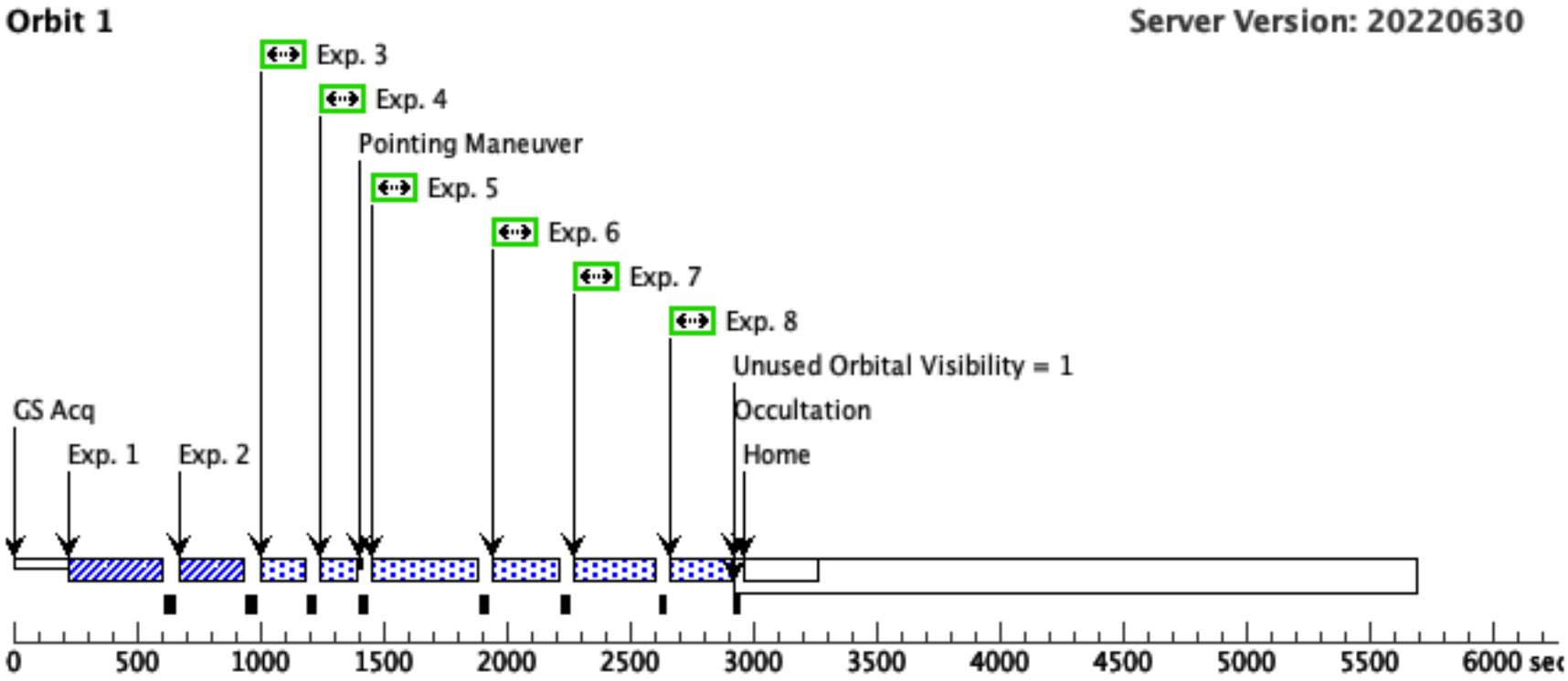
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1F, completed Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 87.9 Orbits TO 98.1 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1F) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

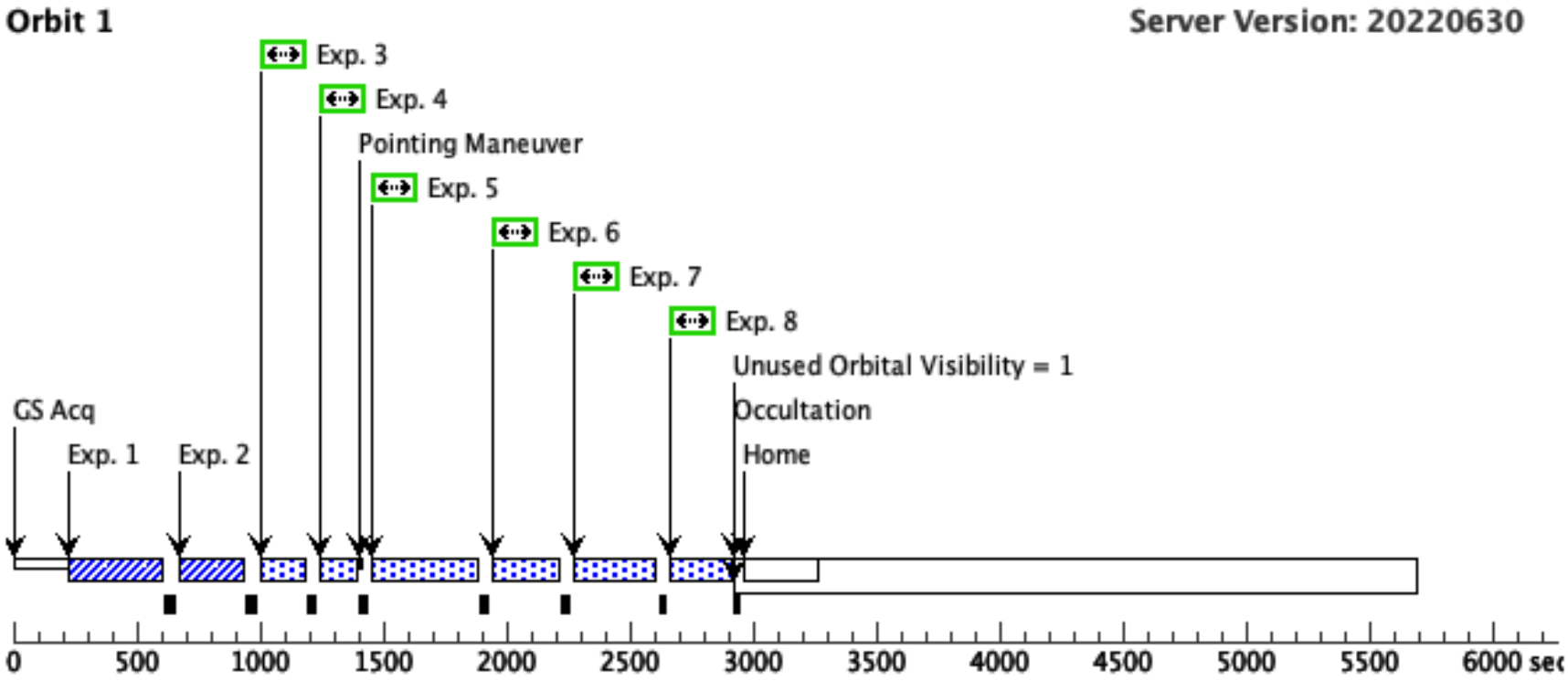
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1G, failed Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 118.9 Orbits TO 129.1 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1G) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

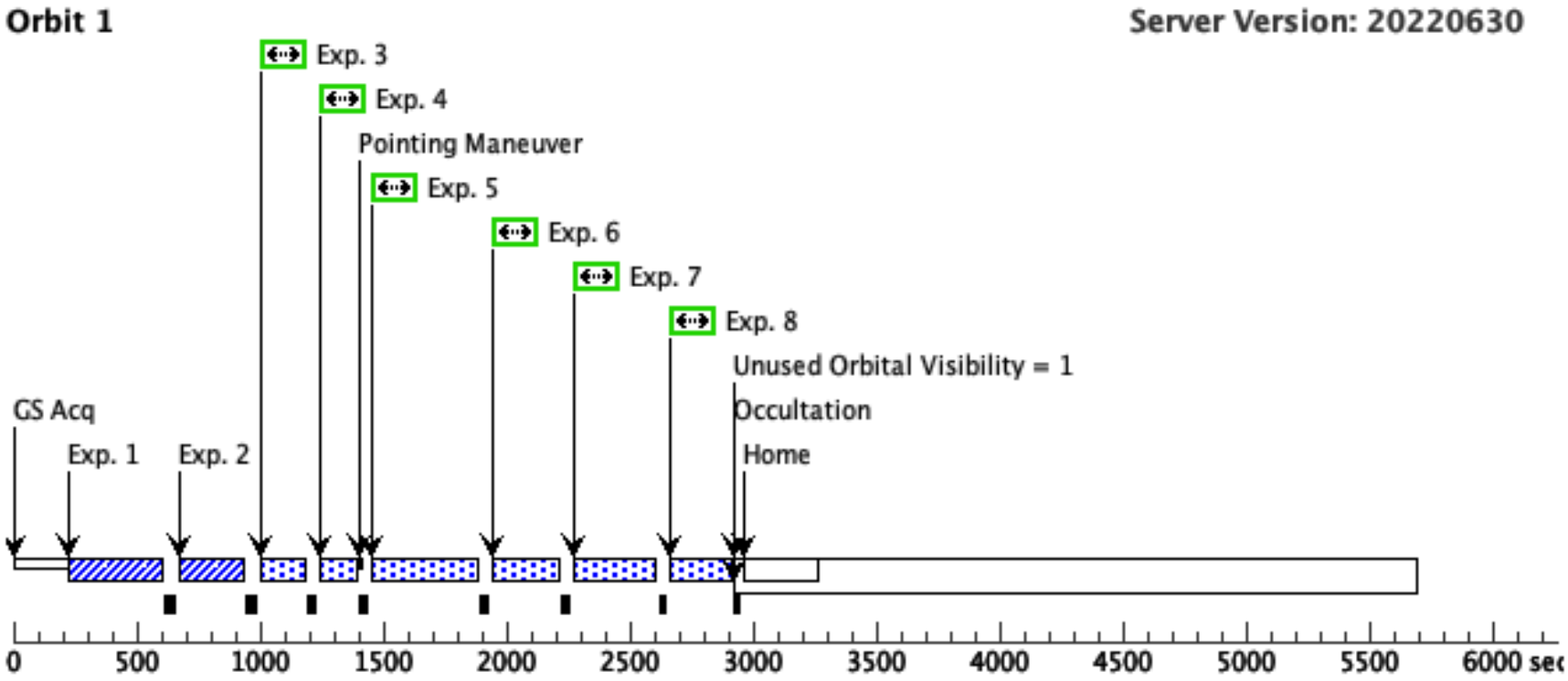
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit AG Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 367 Orbits TO 377.2 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

HOPR repeat of visit 1G

Diagnostics

(Visit AG) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

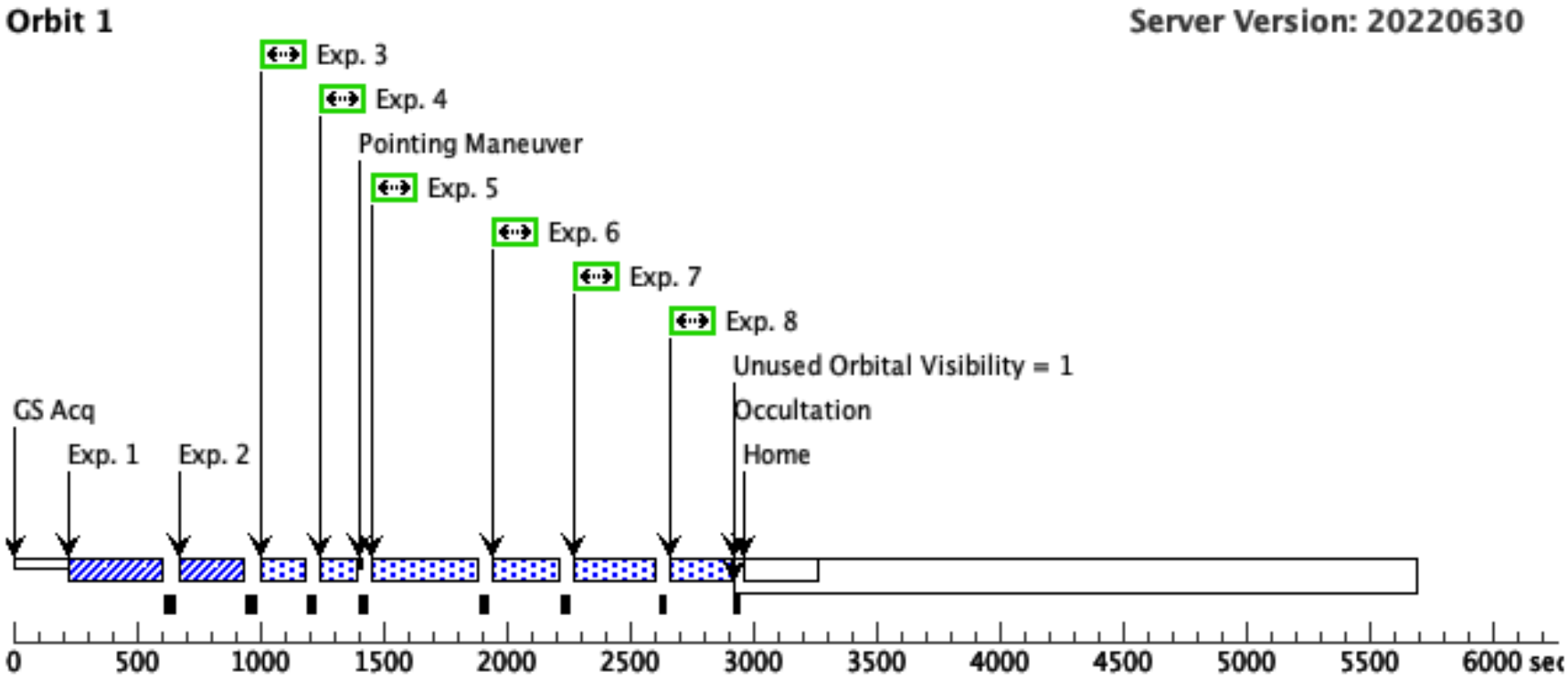
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1H, scheduled Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 149.9 Orbits TO 160.1 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1H) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=3577			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

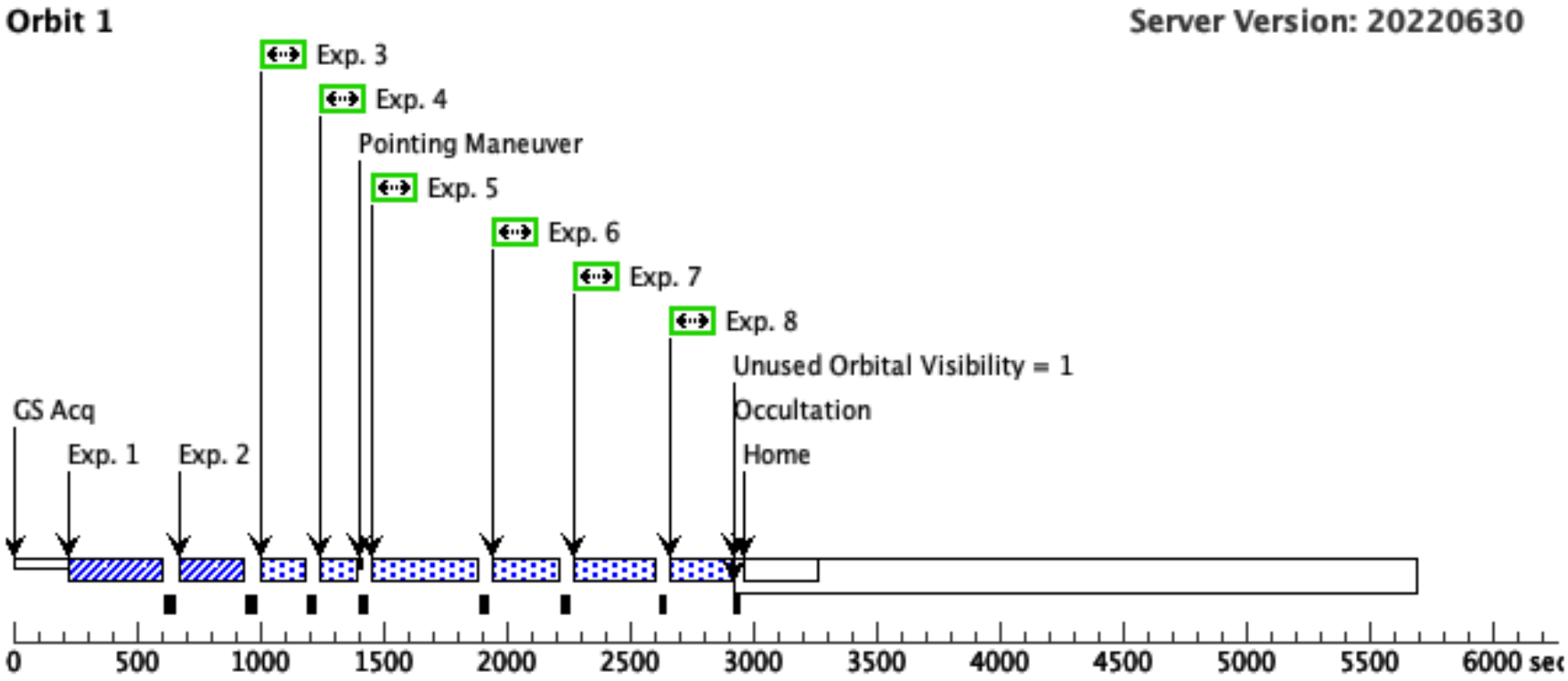
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1I, scheduled Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 180.9 Orbits TO 191.1 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1I) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

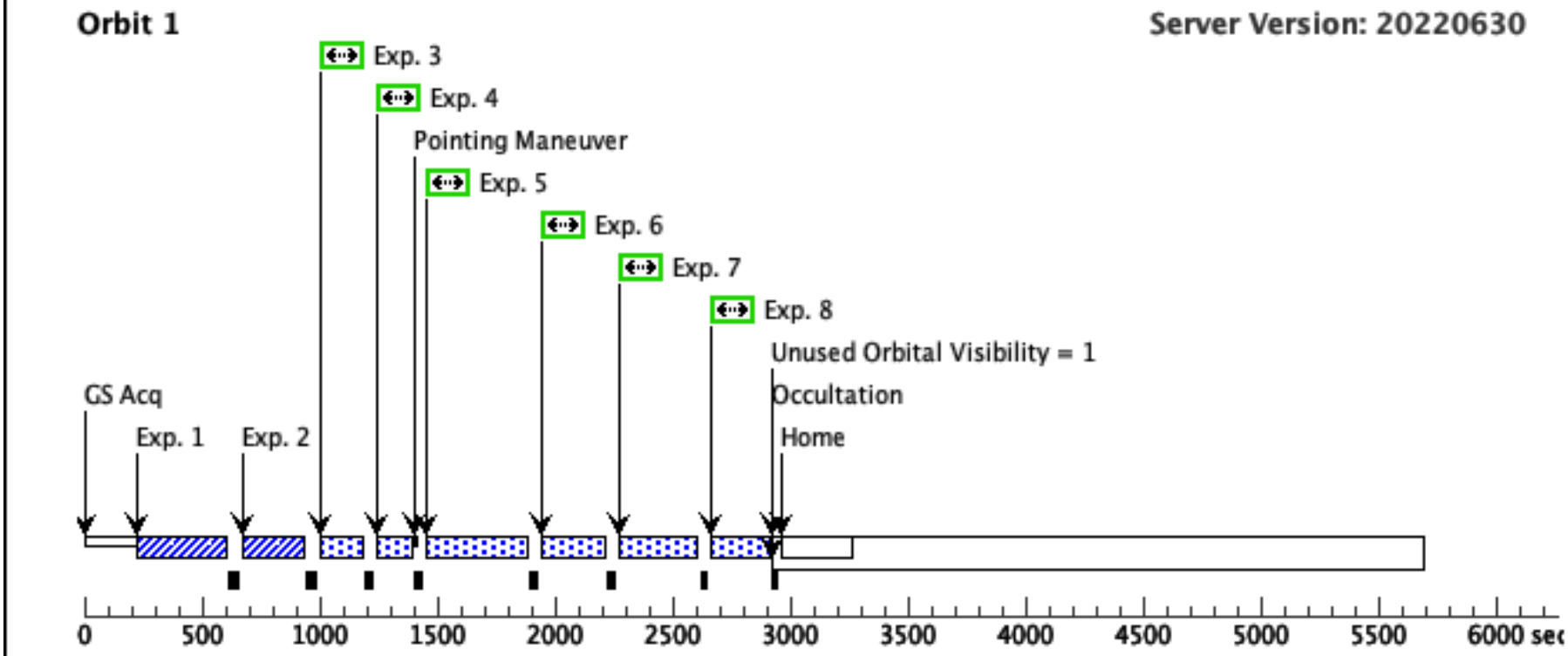
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1J, scheduled Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 212.0 Orbits TO 222.2 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1J) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

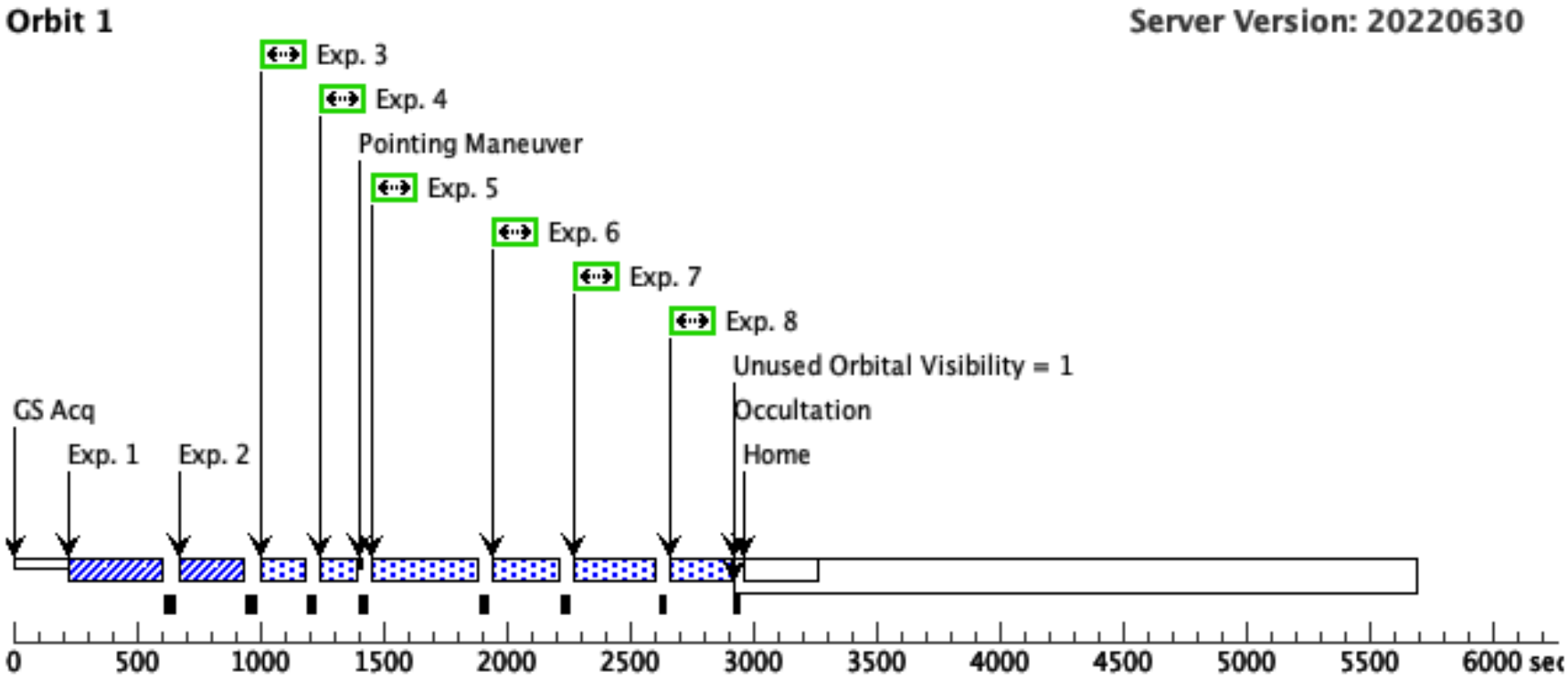
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1K, scheduled Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 243.0 Orbits TO 253.2 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ;P/WF 29/07/21
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

Diagnostics

(Visit 1K) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

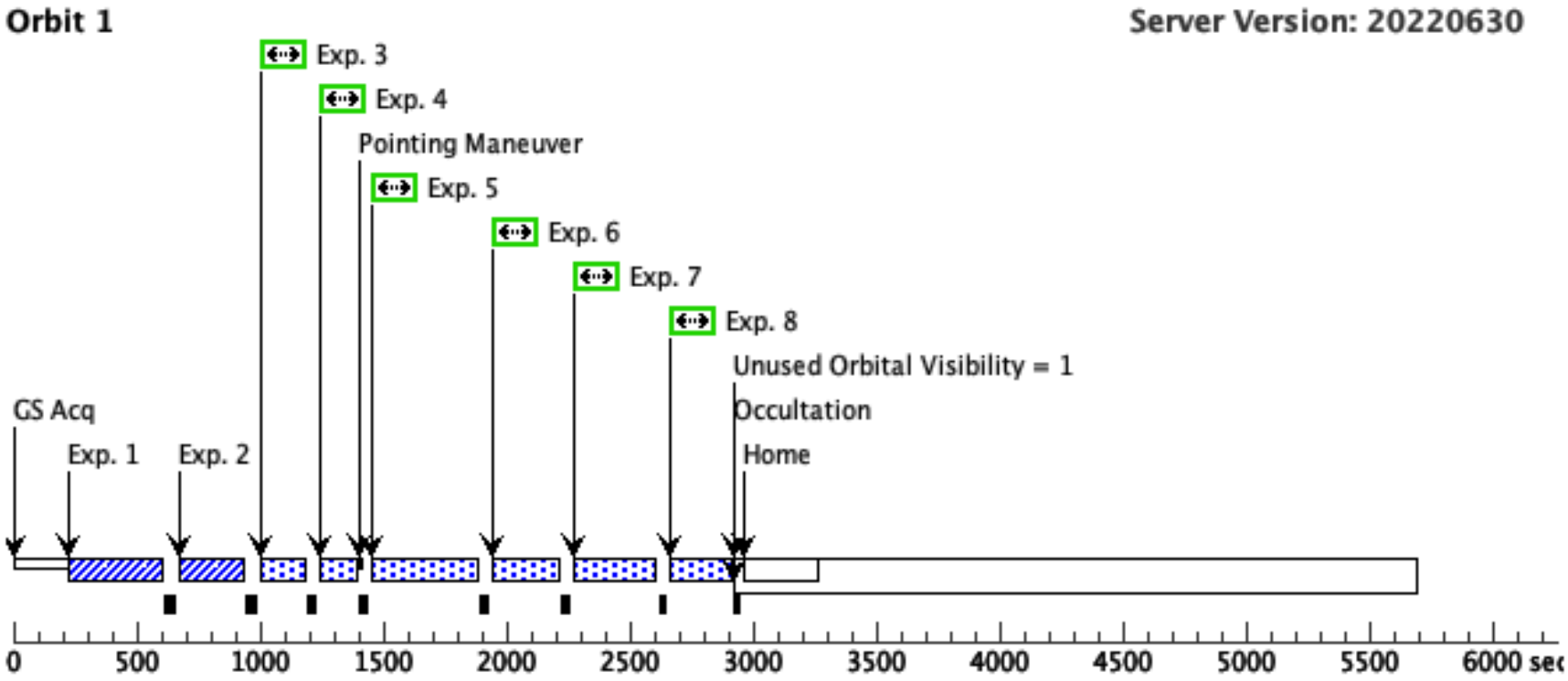
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1L, scheduled Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 274.0 Orbits TO 284.2 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1L) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.

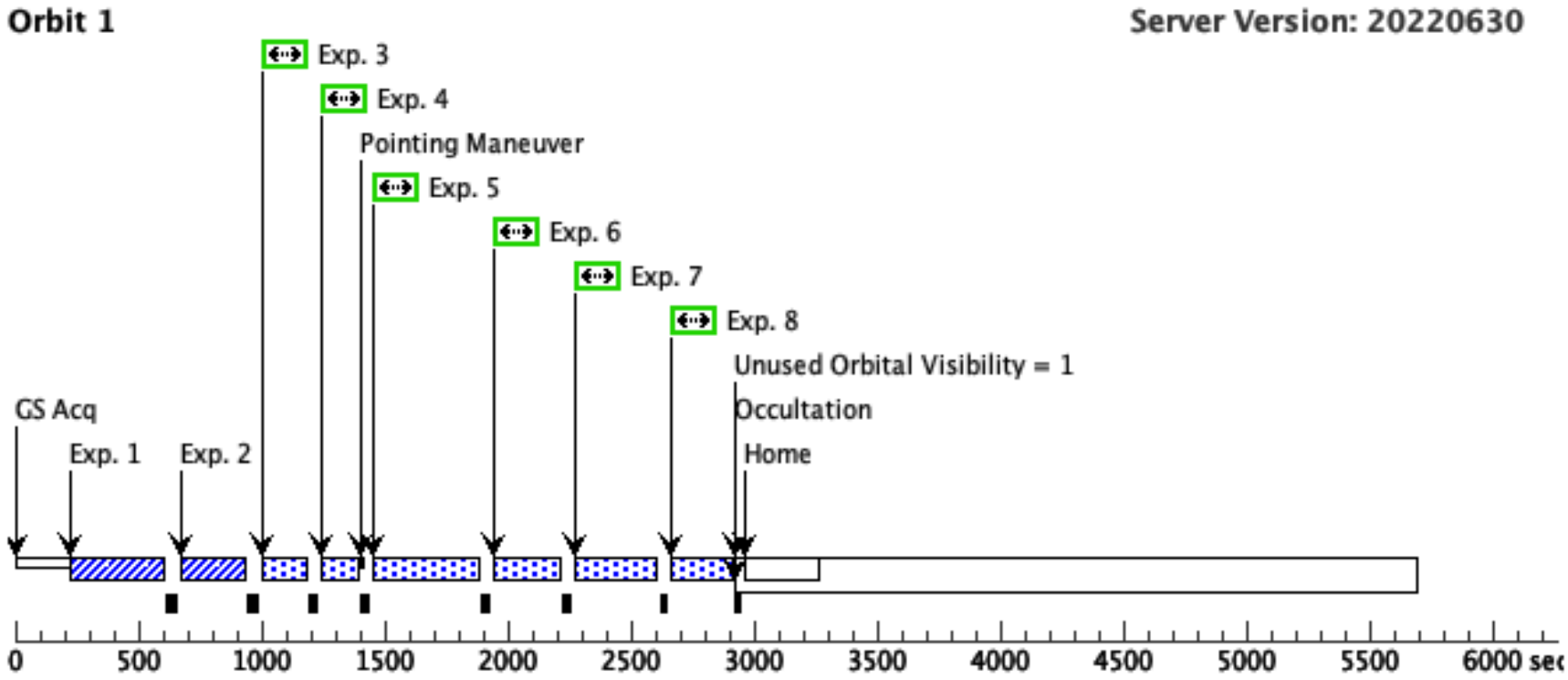
Used model spectrum bptau_lya2_x4.00_etc.txt in the ETC in order to determine bright object safety. Peak local rate of 0.5 cps and global rate of 832, so it is safe. Buffer Fill Time = 2835, so BUFFER-TIME set to 2/ 3 of this value.

	8	G160M/162 3 FP-POS=2 (COS.sp.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1M, scheduling Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 305.0 Orbits TO 315.2 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1M) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.

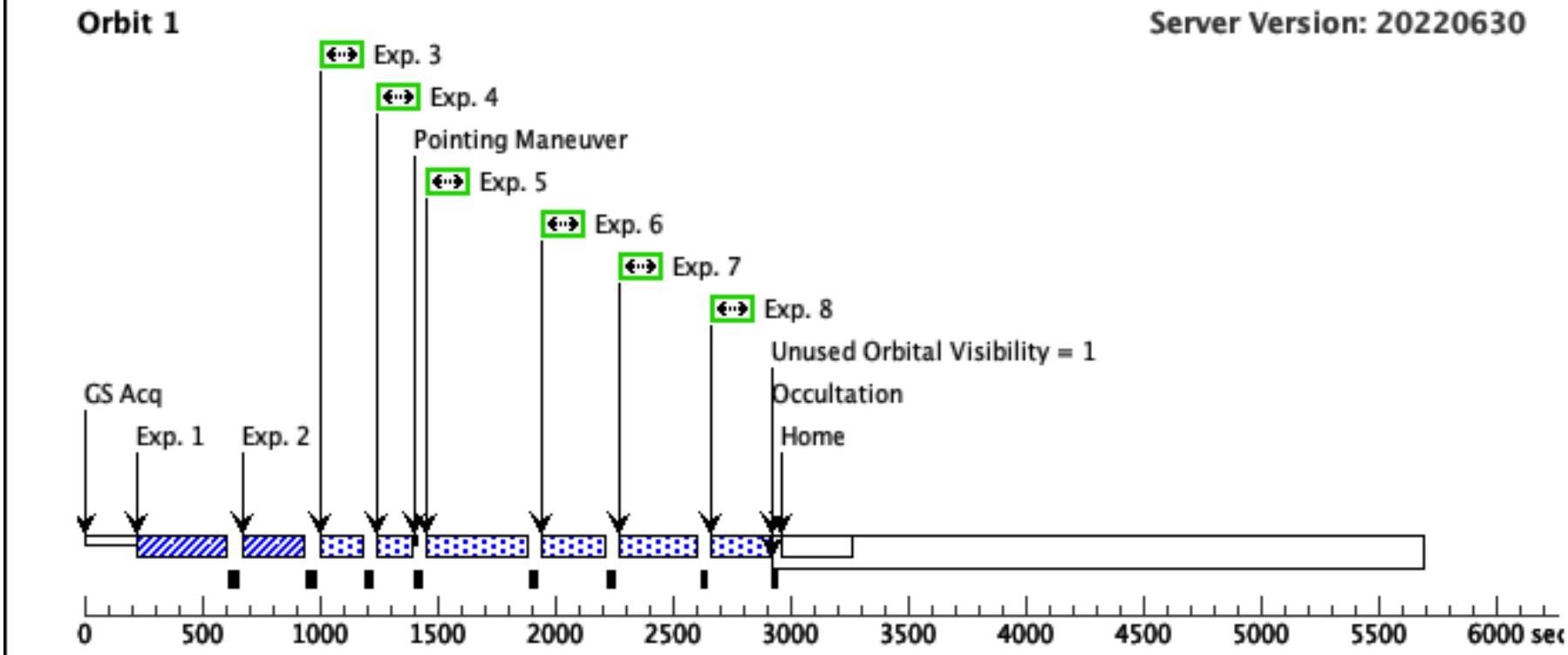
6	G160M/1589 FP-POS=4 (COS.sp.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 Secs) *[==>]*	***[1]***

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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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 16589, Visit 1N, scheduling Fri Dec 23 17:00:39 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; AFTER 1C BY 336.0 Orbits TO 346.2 Orbits; BETWEEN 26-NOV-2022 AND 31-JAN-2023

Comments: vstatus; 1C; V-BP-TAU; P/COS Approved for submission; P/JRD 21/07/21 ; intrev: complete ; P/WF 29/07/21
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

Diagnostics

(Visit 1N) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M.

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/JRD 21/07/21; 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	FP-POS=4; BUFFER-TIME=357			60 Secs (60 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.1543913)	(1) V-BP-TAU	COS/NUV, TIME-TAG, PSA	G230L 2635 A	FP-POS=1; BUFFER-TIME=298			60 Secs (60 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=1730			215 Secs (215 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.1543910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=1730			215 Secs (215 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=1; BUFFER-TIME=18 90	200 Secs (200 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.154 3910)	(1) V-BP-TAU	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=2; BUFFER-TIME=18 90	200 Secs (200 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