



16114 - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

Cycle: 28, Proposal Category: GO/DD

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. Julia Christine Roman-Duval (PI) (Contact)	Space Telescope Science Institute	duval@stsci.edu
Dr. Kenneth Sembach (CoI)	Space Telescope Science Institute	sembach@stsci.edu
Joanna Taylor (CoI)	Space Telescope Science Institute	jotaylor@stsci.edu
Dr. Charles R. Proffitt (CoI) (Contact)	Space Telescope Science Institute	proffitt@stsci.edu
Dr. TalaWanda R. Monroe (CoI) (Contact)	Space Telescope Science Institute	tmonroe@stsci.edu
Travis Fischer (CoI)	Space Telescope Science Institute	tfischer@stsci.edu
Dr. William J. Fischer (CoI) (Contact)	Space Telescope Science Institute	wfischer@stsci.edu
Dr. Alexander W. Fullerton (CoI)	Space Telescope Science Institute	fullerton@stsci.edu
Dr. Alessandra Aloisi (CoI)	Space Telescope Science Institute	alosis@stsci.edu
Christopher Britt (CoI)	Space Telescope Science Institute	cbritt@stsci.edu
Dr. Thomas M. Brown (CoI)	Space Telescope Science Institute	tbrown@stsci.edu
Ivo Busko (CoI)	Space Telescope Science Institute	busko@stsci.edu
Dr. Joleen Carlberg (CoI)	Space Telescope Science Institute	jcarlberg@stsci.edu
Dr. Gisella De Rosa (CoI)	Space Telescope Science Institute	gderosa@stsci.edu
Elaine M Frazer (CoI)	Space Telescope Science Institute	efrazer@stsci.edu
Dr. Svea S Hernandez (CoI)	Space Telescope Science Institute	sveash@stsci.edu
Dr. Bethan Lesley James (CoI) (ESA Member)	Space Telescope Science Institute - ESA	bjames@stsci.edu
Robert Jedrzejewski (CoI)	Space Telescope Science Institute	rij@stsci.edu
Sean Lockwood (CoI)	Space Telescope Science Institute	lockwood@stsci.edu
Dr. Cristina Oliveira (CoI)	Space Telescope Science Institute	oliveira@stsci.edu
Rachel Plesha (CoI)	Space Telescope Science Institute	rplesha@stsci.edu
Dr. I. Neill Reid (CoI)	Space Telescope Science Institute	inr@stsci.edu

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<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. Adric R. Riedel (CoI)	Space Telescope Science Institute	riedel@stsci.edu
Allyssa Riley (CoI)	Space Telescope Science Institute	ariley@stsci.edu
Dr. David J. Sahnou (CoI)	Space Telescope Science Institute	sahnou@stsci.edu
Dr. Ravi Sankrit (CoI)	Space Telescope Science Institute	rsankrit@stsci.edu
Dr. Richard Shaw (CoI)	Space Telescope Science Institute	shaw@stsci.edu
Dr. Linda J. Smith (CoI) (ESA Member)	Space Telescope Science Institute - ESA	lsmith@stsci.edu
Dr. Debopam Som (CoI)	Space Telescope Science Institute	dsom@stsci.edu
Dr. Sangmo Tony Sohn (CoI)	Space Telescope Science Institute	tsohn@stsci.edu
Dr. Leonardo Ubeda (CoI)	Space Telescope Science Institute	lubeda@stsci.edu
Dr. Daniel E. Welty (CoI)	Space Telescope Science Institute	dwelty@stsci.edu

VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
1C	(1) CVSO-107	COS/FUV COS/NUV	2	27-Oct-2020 14:01:02.0	yes
1D	(1) CVSO-107	COS/FUV COS/NUV	2	27-Oct-2020 14:01:03.0	yes
1S	(1) CVSO-107 CCDFLAT WAVE	STIS/CCD STIS/NUV-MAMA	1	27-Oct-2020 14:01:04.0	yes
2C	(2) CVSO-165	COS/FUV COS/NUV	2	27-Oct-2020 14:01:05.0	yes
2D	(2) CVSO-165	COS/FUV COS/NUV	2	27-Oct-2020 14:01:06.0	yes
2S	(2) CVSO-165 CCDFLAT WAVE	STIS/CCD STIS/NUV-MAMA	1	27-Oct-2020 14:01:07.0	yes
3C	(3) CVSO-58	COS/FUV COS/NUV	3	27-Oct-2020 14:01:09.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
3D	(3) CVSO-58	COS/FUV COS/NUV	2	27-Oct-2020 14:01:10.0	yes
3S	(3) CVSO-58 CCDFLAT WAVE	STIS/CCD STIS/NUV-MAMA	1	27-Oct-2020 14:01:11.0	yes
4C	(4) CVSO-90	COS/FUV COS/NUV	2	27-Oct-2020 14:01:13.0	yes
4S	(4) CVSO-90 CCDFLAT WAVE	STIS/CCD STIS/NUV-MAMA	1	27-Oct-2020 14:01:14.0	yes

19 Total Orbits Used

ABSTRACT

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

OBSERVING DESCRIPTION

This proposal includes a subset of the low mass ULLYSES survey stars. Each target will be observed with the COS c1291 + c1611 settings, as well as with STIS G230L, G430L, and G750L. All observations will normally be constrained to occur within 1 day.

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

COS/G130M/c1291: N V 1239 +- 1 A -- S/N=15/6-pix-resel at the peak of the line

COS/G160M/c1611: C IV 1549 +- 1 A -- S/N=30/6-pix-resel at the peak of the line

STIS/G230L/52X2: Mg II 2800 +-15 A -- S/N=20/2-pix-resel at the peak of the line

STIS/G430L/52X2: continuum average 4000 +-5 A -- S/N=20/2-pix-resel (2 reads)

STIS/G750L/52X2: continuum average 5700 +-5 A -- S/N=20/2-pix-resel (2 reads)

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

To obtain near simultaneous coverage, all visits to a given target should be grouped within 1 day.

The visits in this proposal are all constrained to occur between 19 November and 17 December 2020 to be simultaneous with planned TESS observations.

We also wish to attempt to obtain simultaneous coverage with telescopes of the LCOGT network. Unfortunately, this network has an approximately 2 to 3 hour gap in coverage for the Orion targets due to the lack of an observatory at an appropriate longitude. We will therefore add a period and a phase constraint to these observations to prevent the HST observations from being scheduled during this daily gap. The period when the Orion stars can be observed by this network starts when they reach ~ airmass of 2 from the Sutherland observatory in South Africa, and ends about 21 hours later due to the start of morning twilight in Siding Springs Australia. Originally we had planned to enforce this scheduling restriction using APT phase constraints, but instead the Program Coordinator will manually restrict the planning windows in the LRP to achieve the desired effect. This is less error prone and more flexible as these constraints, unlike APT ones, can be relaxed during the schedule building process.

At each TESS perigee, there are two LAHO (low-altitude housekeeping operations) contacts. TESSscience observations stop 10 minutes before the beginning of the first LAHO and resume 5 minutes before the end of the second LAHO. Times of LAHO contacts are posted on the TESS operations calendar at

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<https://calendar.google.com/calendar/b/0/r/week?cid=a21va3YydDM0dmpsc2w2Ymw2Z29vdWE2OGNAZ3JvdXAuY2FsZW5kYXIuZ29vZ2xlLmNvbQ> approximately 3 months in advance.

We will require that our visits start at least 45minutes prior to the start of any gap in TESS operations.

For TESS sector 32,

LAHO Passes

- (1) 19-Nov-2020 08:45-13:45 start 5m before LAHO end
- (2) 02-Dec-2020 10:45-15:45 stop 10m before LAHO start
- (3) 03-Dec-2020 05:45-10:45 start 5m before LAHO end
- (4) 16-Dec-2020 17:45-22:45 stop 10m before LAHO start

TESS start/stop times

19-Nov-2020:13:40 to 02-Dec-2020:10:35

03-Nov-2020:10:40 to 16-Dec-2020:17:35

Constrain end of HST BETWEENs to be 55m, 2h30m, and 4h5m before TESS end for 1, 2, and 3 orbit visits to allow HST to complete before TESS end

HST-1 orbit: subtract 50 minutes from end times

19-Nov-2020:13:40 to 02-Dec-2020:09:40

03-Nov-2020:10:40 to 16-Dec-2020:16:40

HST-2 orbit: subtract 2h25m from end times

19-Nov-2020:13:40 to 02-Dec-2020:08:05

03-Nov-2020:10:40 to 16-Dec-2020:15:05

HST-3 orbit: subtract 4h from end times

19-Nov-2020:13:40 to 02-Dec-2020:06:30

03-Nov-2020:10:40 to 16-Dec-2020:13:30

Proposal 16114 - CVSO-107-COS (1C) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

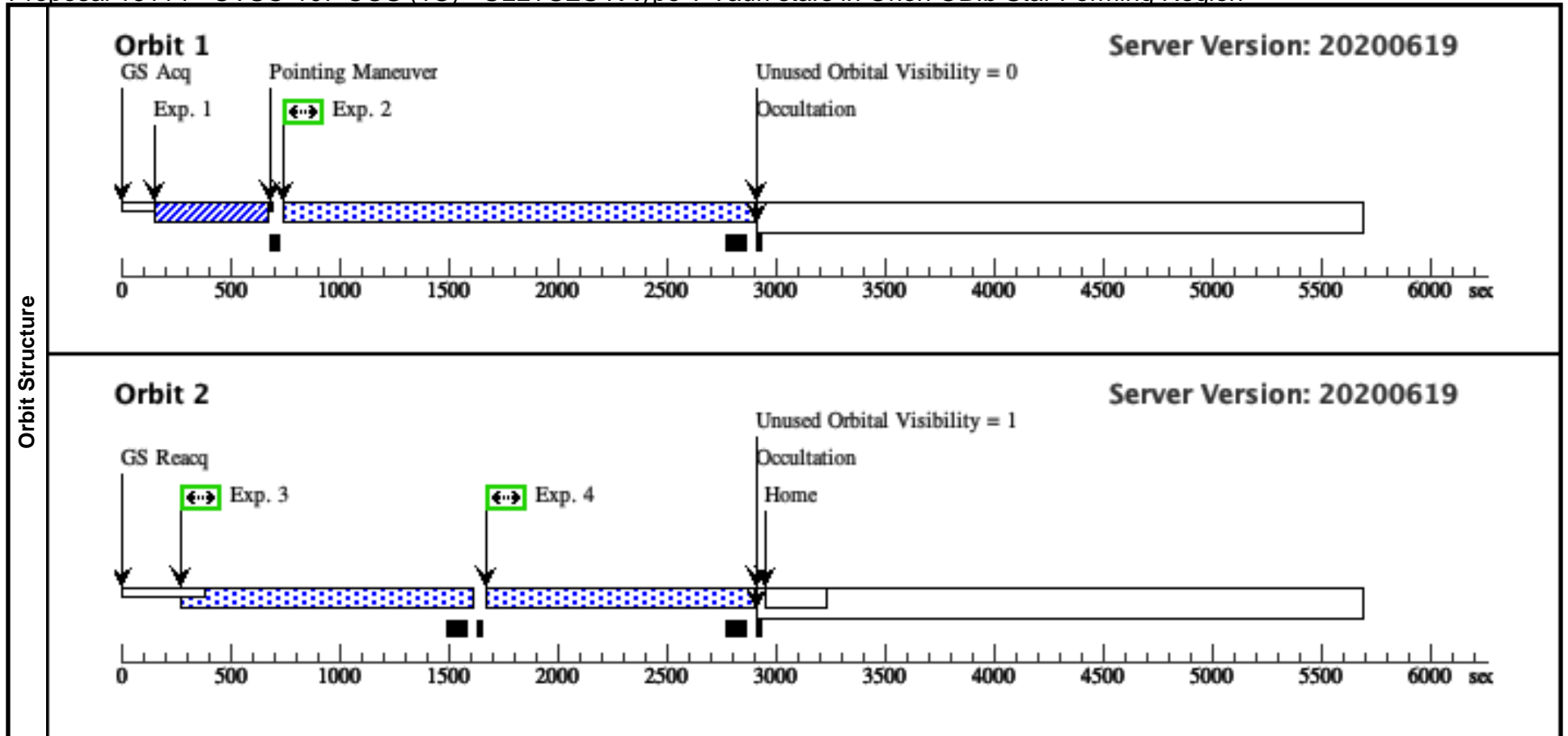
Tue Oct 27 18:01:15 GMT 2020

Proposal 16114, CVSO-107-COS (1C), implementation
Diagnostic Status: No Diagnostics
 Scientific Instruments: COS/FUV, COS/NUV
 Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:08:05:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:15:05:00
Comments: vstatus; 1C; CVSO-107; P/COS approved for submission; P/CP 02/09/20; internal review complete; C/DS 16/09/20
vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-107; COS; CP
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?; PSA/MIRROR
vcheck; Possible ACQ or Sci spoilers?; None
vcheck; Field BOT clear?; Yes ...
one unknown SILN033093, has NpgMag (roughly I band) =18.1799 in GSC2, but does not appear in other images or catalogs (neither Gaia nor SDSS show any object here), so this is probably a very faint and very red object, so it is not of concern
vcheck; Visual BOT check for stars not in catalog?; Clear
vcheck; Orbit packing finalized?; Yes ..
Achieved 97.5% of requested c1291 and 98.3% of c1611 in two 2 orbit visits 1C and 1D.
vcheck; Buffer times optimized?; yes ...
set to exptime - 110 even though this is much shorter than required
vcheck; Verify visit grouping correct; GROUP 1S, 1C, 1D within 1 day
vcheck; phase constraint for ground based observations added?; Yes
vcheck; BETWEENS for coordinated observations added?; Between 19-nov-2020 and 17-dec-2020
vcheck; Is visit ready for int. review?; Yes
 Allocated COS orbits = 4, (2+2 orbit visits)

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	CVSO-107 Alt Name1: J05322578-0036533	RA: 05 32 25.7829 (83.1074287d) Dec: -00 36 53.38 (-.61483d) Equinox: J2000	Proper Motion RA: 1.647859428 mas/yr Proper Motion Dec: -0.9251155090000001 mas/yr Parallax: 0.0029508025519999997" Epoch of Position: 2015.5	V=14.78 SpT=K7; A_V=0.32; U=15.24; V=14.65; I=12.82; J=11.551	Reference Frame: ICRS
<p><i>Comments: CVSO-107 : J05322578-0036533</i> Region: Ori OB1b Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05322578-0036533&submit=submit+id Target coordinates are from Gaia DR2. Spectral type: K7 ; A_V: 0.32 ; Distance (pc): 440 M*: 0.77 ; log(dm/dt): -7.96 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv cvso107_lya2_etc.txt Calculation performed 2020-07-30T14:21:25, v0.4</p> <hr/> <p><i>tstatus: CVSO-107; P/COS approved for submission; S/STIS Ready for internal review; P/CP 11/08/20; S/CP 11/08/20</i> <i>tcheck; APT/SIMBAD target names: ; Kiso A-0904 4</i> <i>tcheck; Target info verification status?; Good</i> <i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i> <i>tcheck; Adopted SED compared to Observations?; Yes ...</i> <i>BVI data within a factor of 2 of predictions (cvso-107-sed-vs-photo-revised.png). Continuum in observed G160M spectrum about a factor of two high (cvso-107-sed-vs-g160m.png), but overall count rate very low (about 30 cnts/s from source integrated over the whole spectrum), while brightest observed emission lines are actually a bit fainter in the real observation than in the prediction (cvso-107-sed-vs-g160m-detail.png).</i> Category=STAR Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR] Extended=NO</p>					

Proposal 16114 - CVSO-107-COS (1C) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	ACQ/Image (1) CVSO-107 (COS.ta.146 0360)	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				110.2 Secs (110.2 Secs) [==>]	[1]
	<i>Comments: baseline at S/N 40 (2x requirement) COS.ta.1460360 needs 110.2 s, with B.P. = 2.03</i>								
	2	G130M/129 (1) CVSO-107 1-3 (COS.sp.146 0369)	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=18 81; FP-POS=3			1991 Secs (1991 Secs) [==>]	[1]
	<i>Comments: 4x BOP Check COS.sp.1460369 - B.P. is Lyman-alpha geocoronal S/N check with nominal spectrum is COS.sp.1460374</i> <i>cvso107_lya2_etc.txt; cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7; A_V: 0.32; Distance (pc): 440</i> <i>M*: 0.77; log(dm/dt): -7.96</i> <i>For exptime=2041.1 s, spectral region:</i> <i>1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 314.4 cts/s/segment</i> <i>brightest pixel: 0.007 cts/s/pix at 1304.9 A</i> <i>Calculation performed 2020-07-30T14:21:25, v0.9</i>								
3	G160M/161 (1) CVSO-107 1-1 (COS.sp.146 0364)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=1			1177 Secs (1177 Secs) [==>]	[2]	
<i>Comments: 4x case for BOP COS.sp.1460364, B.P. 0.037 cts/pixel/s baseline for S/N COS.sp.1460366</i> <i>cvso107_lya2_etc.txt; cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7; A_V: 0.32; Distance (pc): 440</i> <i>M*: 0.77; log(dm/dt): -7.96</i> <i>For exptime=2395.0 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 86.6 cts/s/segment</i> <i>brightest pixel: 0.009 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:22, v0.9</i>									
4	G160M/161 (1) CVSO-107 1-3 (COS.sp.146 0364)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=3			1177 Secs (1177 Secs) [==>]	[2]	
<i>Comments: 4x case for BOP COS.sp.1460364, B.P. 0.037 cts/pixel/s baseline for S/N COS.sp.1460366</i> <i>cvso107_lya2_etc.txt; cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7; A_V: 0.32; Distance (pc): 440</i> <i>M*: 0.77; log(dm/dt): -7.96</i> <i>For exptime=2395.0 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 86.6 cts/s/segment</i> <i>brightest pixel: 0.009 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:22, v0.9</i>									



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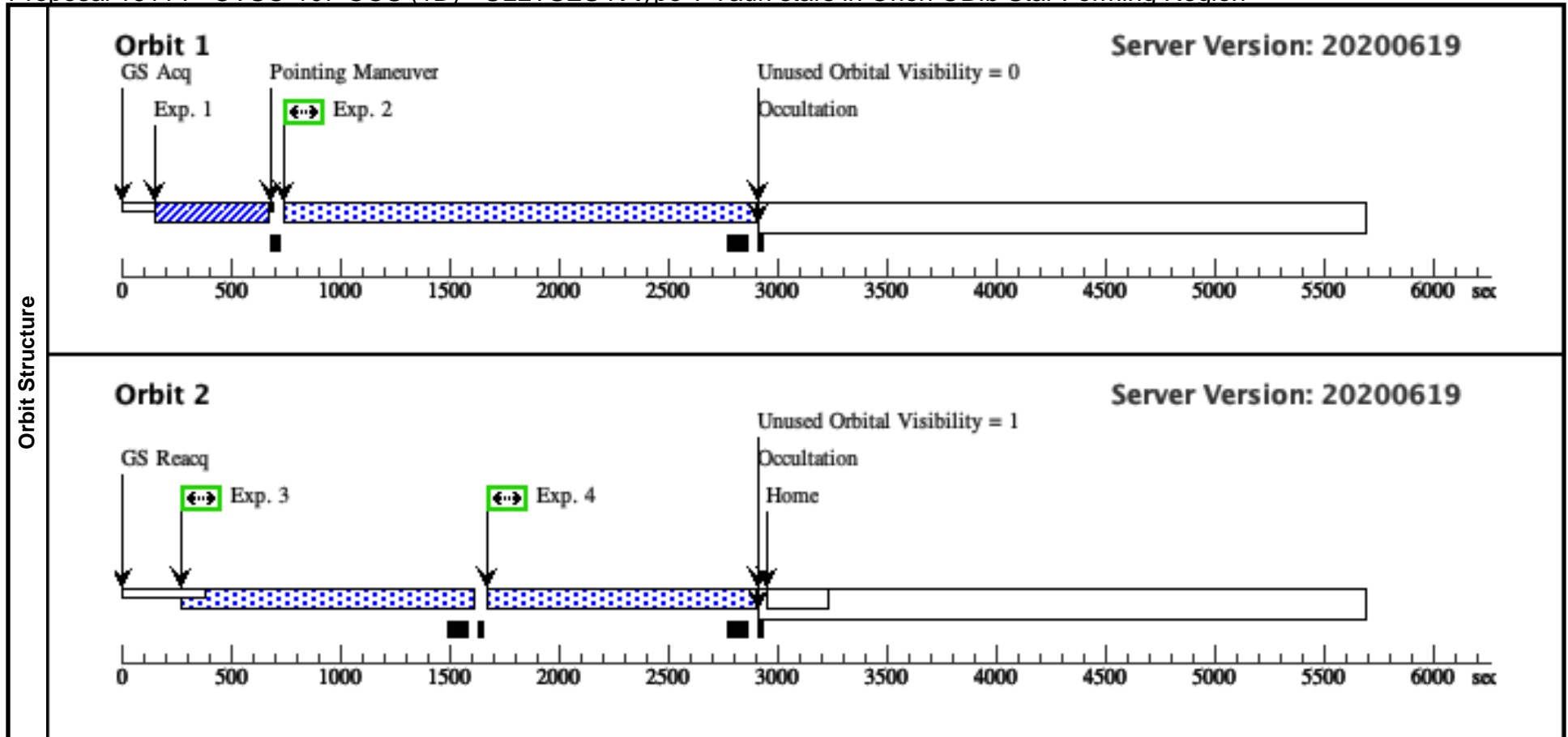
Tue Oct 27 18:01:15 GMT 2020

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 Comments: vstatus; 1C; CVSO-107; P/COS approved for submission; P/CP 02/09/20; internal review complete; C/DS 16/09/20
 See Visit 1C for a full filled out checklist
 vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-107; COS; CP
 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?; PSA/MIRROR
 vcheck; Possible ACQ or Sci spoilers?; None
 vcheck; Field BOT clear?; Yes ...
one unknown S1LN033093, has NpgMag (roughly I band) = 18.1799 in GSC2, but does not appear in other images or catalogs (neither Gaia nor SDSS show any object here), so this is probably a very faint and very red object, so it is not of concern
 vcheck; Visual BOT check for stars not in catalog?; Clear
 vcheck; Orbit packing finalized?; -----
 vcheck; Buffer times optimized?; -----
 vcheck; Verify visit grouping correct; -----
 vcheck; phase constraint for ground based observations added?; -----
 vcheck; BETWEENS for coordinated observations added?; -----
 vcheck; Is visit ready for int. review?; -----
 Allocated COS orbits = 4

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(1)	CVSO-107 Alt Name1: J05322578-0036533	RA: 05 32 25.7829 (83.1074287d) Dec: -00 36 53.38 (-.61483d) Equinox: J2000	Proper Motion RA: 1.647859428 mas/yr Proper Motion Dec: -0.9251155090000001 mas/yr Parallax: 0.0029508025519999997" Epoch of Position: 2015.5	V=14.78 SpT=K7; A_V=0.32; U=15.24; V=14.65; I=12.82; J=11.551	Reference Frame: ICRS
	<p>Comments: CVSO-107 : J05322578-0036533 Region: Ori OB1b Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05322578-0036533&submit=submit+id Target coordinates are from Gaia DR2. Spectral type: K7; A_V: 0.32; Distance (pc): 440 M*: 0.77; log(dm/dt): -7.96 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv cvso107_lya2_etc.txt Calculation performed 2020-07-30T14:21:25, v0.4</p> <hr/> <p>tstatus; CVSO-107; P/COS approved for submission; S/STIS Ready for internal review; P/CP 11/08/20; S/CP 11/08/20 tcheck; APT/SIMBAD target names: ; Kiso A-0904 4 tcheck; Target info verification status?; Good tcheck; Coordinates & P.M. verified, epoch checked?; Yes tcheck; Adopted SED compared to Observations?; Yes ... BVI data within a factor of 2 of predictions (cvso-107-sed-vs-photo-revised.png). Continuum in observed G160M spectrum about a factor of two high (cvso-107-sed-vs-g160m.png), but overall count rate very low (about 30 cnts/s from source integrated over the whole spectrum), while brightest observed emission lines are actually a bit fainter in the real observation than in the prediction (cvso-107-sed-vs-g160m-detail.png). Category=STAR Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR] Extended=NO</p>				

Proposal 16114 - CVSO-107-COS (1D) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	ACQ/Image (COS.ta.146 0360)	(1) CVSO-107 COS/NUV, ACQ/IMAGE, PSA	MIRRORB				110.2 Secs (110.2 Secs) [==>]	[1]
	<i>Comments: baseline at S/N 40 (2x requirement) COS.ta.1460360 needs 110.2 s, with B.P. = 2.03</i>								
	2	G130M/129 1-4 (COS.sp.146 0369)	(1) CVSO-107 COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=18 81; FP-POS=4			1991 Secs (1991 Secs) [==>]	[1]
	<i>Comments: 4x BOP Check COS.sp.1460369 - B.P. is Lyman-alpha geocoronal S/N check with nominal spectrum is COS.sp.1460374</i> <i>cvso107_lya2_etc.txt; cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7; A_V: 0.32; Distance (pc): 440</i> <i>M*: 0.77; log(dm/dt): -7.96</i> <i>For exptime=2041.1 s, spectral region:</i> <i>1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 314.4 cts/s/segment</i> <i>brightest pixel: 0.007 cts/s/pix at 1304.9 A</i> <i>Calculation performed 2020-07-30T14:21:25, v0.9</i>								
3	G160M/161 1-2 (COS.sp.146 0364)	(1) CVSO-107 COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=2			1177 Secs (1177 Secs) [==>]	[2]	
<i>Comments: 4x case for BOP COS.sp.1460364, B.P. 0.037 cts/pixel/s baseline for S/N COS.sp.1460366</i> <i>cvso107_lya2_etc.txt; cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7; A_V: 0.32; Distance (pc): 440</i> <i>M*: 0.77; log(dm/dt): -7.96</i> <i>For exptime=2395.0 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 86.6 cts/s/segment</i> <i>brightest pixel: 0.009 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:22, v0.9</i>									
4	G160M/161 1-4 (COS.sp.146 0364)	(1) CVSO-107 COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=4			1177 Secs (1177 Secs) [==>]	[2]	
<i>Comments: 4x case for BOP COS.sp.1460364, B.P. 0.037 cts/pixel/s baseline for S/N COS.sp.1460366</i> <i>cvso107_lya2_etc.txt; cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7; A_V: 0.32; Distance (pc): 440</i> <i>M*: 0.77; log(dm/dt): -7.96</i> <i>For exptime=2395.0 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 86.6 cts/s/segment</i> <i>brightest pixel: 0.009 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:22, v0.9</i>									



Proposal 16114 - CVSO-107-STIS (1S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

Tue Oct 27 18:01:15 GMT 2020

Proposal 16114, CVSO-107-STIS (1S), implementation
Diagnostic Status: No Diagnostics
 Scientific Instruments: STIS/NUV-MAMA, STIS/CCD
 Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:09:40:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:16:40:00; GROUP 1S,1C,1D WITHIN 1D
Comments: vstatus; 1S; CVSO-107; S/STIS approved for submission; P/CP 02/09/20 ; internal review complete ; S/DW 11/09/20
vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-107 ;STIS ; CP
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?; F28X50LP, S/N=80 using baseline SED
vcheck; Possible ACQ or Sci spoilers?; None
vcheck; Field BOT clear?; Yes ...
one unknown SILN033093, has NpgMag (roughly I band) =18.1799 in GSC2, but does not appear in other images or catalogs (neither Gaia nor SDSS show any object
vcheck; Visual BOT check for stars not in catalog?; clear
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 STIS orbits = 1

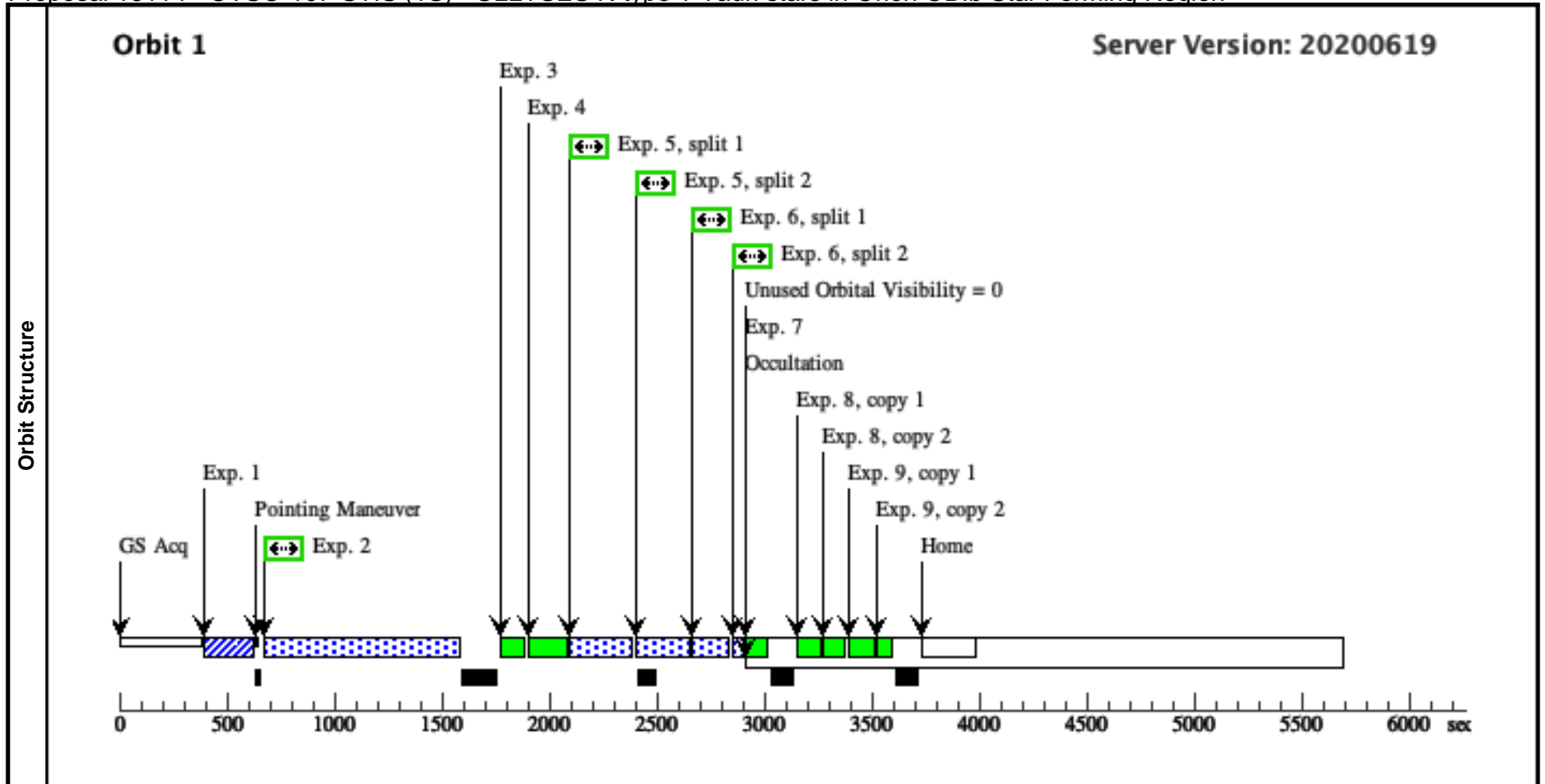
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	CVSO-107 Alt Name1: J05322578-0036533	RA: 05 32 25.7829 (83.1074287d) Dec: -00 36 53.38 (-.61483d) Equinox: J2000	Proper Motion RA: 1.647859428 mas/yr Proper Motion Dec: -0.9251155090000001 mas/yr Parallax: 0.0029508025519999997" Epoch of Position: 2015.5	V=14.78 SpT=K7; A_V=0.32; U=15.24; V=14.65; I=12.82; J=11.551	Reference Frame: ICRS
	<p><i>Comments: CVSO-107 : J05322578-0036533</i> Region: Ori OB1b Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05322578-0036533&submit=submit+id Target coordinates are from Gaia DR2. Spectral type: K7 ; A_V: 0.32 ; Distance (pc): 440 M*: 0.77 ; log(dm/dt): -7.96 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv cvso107_lya2_etc.txt Calculation performed 2020-07-30T14:21:25, v0.4</p> <hr/> <p><i>tstatus: CVSO-107; P/COS approved for submission; S/STIS Ready for internal review; P/CP 11/08/20; S/CP 11/08/20</i> <i>tcheck; APT/SIMBAD target names: ; Kiso A-0904 4</i> <i>tcheck; Target info verification status?; Good</i> <i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i> <i>tcheck; Adopted SED compared to Observations?; Yes ...</i> BVI data within a factor of 2 of predictions (cvso-107-sed-vs-photo-revised.png). Continuum in observed G160M spectrum about a factor of two high (cvso-107-sed-vs-g160m.png), but overall count rate very low (about 30 cnts/s from source integrated over the whole spectrum), while brightest observed emission lines are actually a bit fainter in the real observation than in the prediction (cvso-107-sed-vs-g160m-detail.png). Category=STAR Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR] Extended=NO</p>				

Proposal 16114 - CVSO-107-STIS (1S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.146 0391)	(1) CVSO-107	STIS/CCD, ACQ, F28X50LP	MIRROR				0.4 Secs (0.4 Secs) [==>]	[1]
<i>Comments: STIS.ta.1460391 calculated for nominal spectrum with S/N = 80</i>									
2	G230L/2376 (STIS.sp.14 60389)	(1) CVSO-107	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	WAVECAL=NO; BUFFER-TIME=37 7			753 Secs (753 Secs) [==>]	[1]
<i>Comments: 4X for BOP check: STIS.sp.1460389; B.P. rate = 2.877 cts/pix/s Baseline for S/N calculation: STIS.sp.1460388</i>									
<i>cvso107_lya2_etc.txt; stis,mvmama,g230l,c2376,52x2,mjd#59305 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7; A_V: 0.32; Distance (pc): 440 M*: 0.77; log(dm/dt): -7.96 For exptime=113.8 s, spectral region: 2800.0 +- 15.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 2493.8 cts/s/segment brightest pixel: 0.721 cts/s/pix at 2788.8 A Calculation performed 2020-07-30T14:21:25, v0.9 cited ETC used Lya x 4 -- with brightest 2.877, global 3035.4</i>									
3	G230L/2376 WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A				[==>]	[1]
4	G430L/4300 WAVECAL	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A				[==>]	[1]
5	G430L/4300 (STIS.sp.14 63442)	(1) CVSO-107	STIS/CCD, ACCUM, 52X2	G430L 4300 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4			432 Secs (432 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
<i>Comments: Normalizing a K7 star to V=14.78 and E(B-V)=0.152 with mwrv21 gives ETC STIS.sp.1463442 with texp=216s, so double to 432s.</i>									
<i>cvso107_lya2_etc.txt; stis,ccd,g430l,c4300,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7; A_V: 0.32; Distance (pc): 440 M*: 0.77; log(dm/dt): -7.96 For exptime=70.1 s, n_reads=2, spectral region: 4000.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 38680.5 cts/s/segment brightest pixel: 15.042 cts/s/pix at 4871.0 A Calculation performed 2020-07-30T14:21:25, v0.9 cited ETC used Kstar, has brightest 5.258 at 5308.4 A, global 34.8k</i>									

Proposal 16114 - CVSO-107-STIS (1S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

6	G750L/7751 (1) CVSO-107 (STIS.sp.14 60383)	STIS/CCD, ACCUM, 52X2	G750L 7751 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4	35.8 Secs (35.8 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
<p>Comments: cvso107_lya2_etc.txt; stis,ccd,g750l,c7751,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.32 ; Distance (pc): 440 M*: 0.77 ; log(dm/dt): -7.96 For exptime=7.6 s, n_reads=2, spectral region: 5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-rese A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 62235.0 cts/s/segment brightest pixel: 93.576 cts/s/pix at 6563.9 A Calculation performed 2020-07-30T14:21:25, v0.9 cited ETC used sed, with brightest, global as given above</p>						
7	G750L/7751 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		[==>]	[1]
8	G750L/7751 CCDFLAT CCDFLAT 1	STIS/CCD, ACCUM, 0.3X0.09	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
<p>Comments: cvso107_lya2_etc.txt; stis,ccd,g750l,c7751,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.32 ; Distance (pc): 440 M*: 0.77 ; log(dm/dt): -7.96 For exptime=7.6 s, n_reads=2, spectral region: 5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-rese A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 62235.0 cts/s/segment brightest pixel: 93.576 cts/s/pix at 6563.9 A Calculation performed 2020-07-30T14:21:25, v0.9</p>						
9	G750L/7751 CCDFLAT CCDFLAT 2	STIS/CCD, ACCUM, 52X2	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
<p>Comments: cvso107_lya2_etc.txt; stis,ccd,g750l,c7751,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.32 ; Distance (pc): 440 M*: 0.77 ; log(dm/dt): -7.96 For exptime=7.6 s, n_reads=2, spectral region: 5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-rese A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 62235.0 cts/s/segment brightest pixel: 93.576 cts/s/pix at 6563.9 A Calculation performed 2020-07-30T14:21:25, v0.9</p>						



Proposal 16114 - CVSO-165-COS (2C) - ULLYSES K-type T Tauri stars in Orion OBIb Star Forming Region

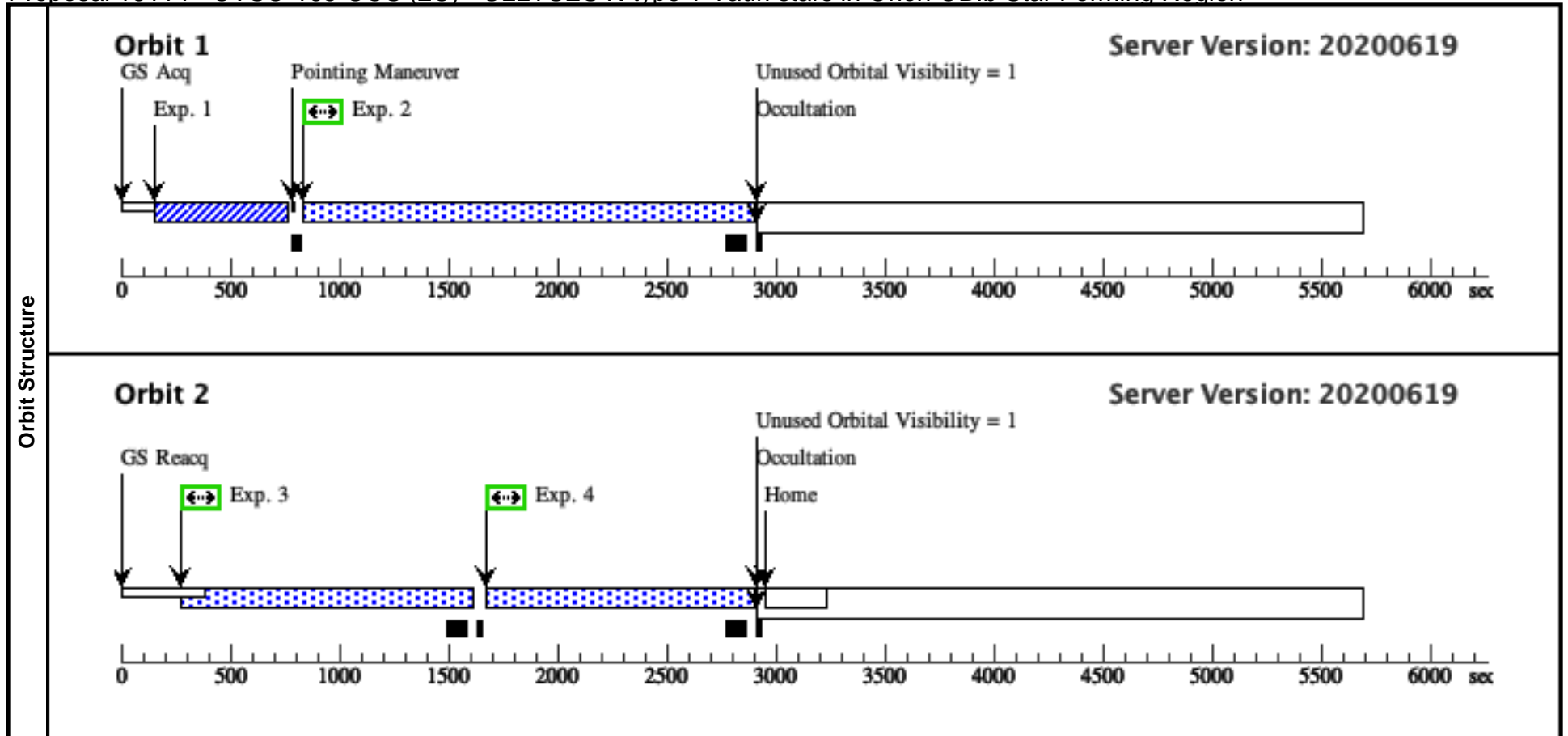
Tue Oct 27 18:01:15 GMT 2020

Proposal 16114, CVSO-165-COS (2C), implementation
Diagnostic Status: No Diagnostics
 Scientific Instruments: COS/FUV, COS/NUV
 Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:08:05:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:15:05:00
Comments: vstatus; 2C; CVSO-165;P/COS approved for submission; P/CP 02/09/20; internal review complete ; C/DS 16/09/20
vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-165 ; COS ; CP
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?; PSA MIRRORB, S/N=40 (2X normal to allow for fainter than expected target)
vcheck; Possible ACQ or Sci spoilers?; no, bluer and fainter companion at 5" can be shown to be safe (see comments in ACQ exposure)
vcheck; Field BOT clear?; Yes, GSC2 version of target shows up as unsafe, but target easily safe when estimated spectrum is used.
vcheck; Visual BOT check for stars not in catalog?; companion at 5" not in GSC2, but easily cleared with Gaia mag and color (see discussion in target comments)
vcheck; Orbit packing finalized?; Yes ...
obtained 82.5% of c1291 goal, and 87.8% of c1611
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; Yes, 2S, 2C, 2D within 1 day
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 = 4

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	CVSO-165 Alt Name1: J05390257-0120323	RA: 05 39 2.5736 (84.7607233d) Dec: -01 20 32.45 (-1.34235d) Equinox: J2000	Proper Motion RA: -0.396457276 mas/yr Proper Motion Dec: -1.656458039 mas/yr Parallax: 0.002980237415" Epoch of Position: 2015.5	V=13.68 SpT=K6; A_V=0.00; U=15.25; V=13.73; I=12.33; J=11.1	Reference Frame: ICRS
<p><i>Comments: CVSO-165 : J05390257-0120323</i> Region: Ori OBIb Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05390257-0120323&submit=submit+id Target coordinates are from Gaia DR2. Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv cvso165_lya2_etc.txt Calculation performed 2020-07-30T14:21:34, v0.4</p> <hr/> <p><i>tstatus; CVSO-165; P/COS approved for submission; S/STIS Ready for internal review; P/CP 01/08/20; S/CP 01/08/20</i> <i>tcheck; APT/SIMBAD target names: ; Kiso A-0904 76; CVSO 165</i> <i>tcheck; Target info verification status?; good, but has a visual companion ...</i> <i>companion at 5.432" and PA = 321.5.</i> <i>G=15.054, Bp=15.5261, Rp = 14.3965, Bp - Rp=1.1296, Parallax=0.7217, SDSS u = 17.186</i> <i>Gaia color matches~ K2.5V spectral type, but large distance suggests too luminous for a dwarf</i> <i>vs intended target with</i> <i>G=13.299, Bp=14.0800, Rp = 12.4122, Bp - Rp=1.6678, Parallax=2.9802, SDSS u = 16.725</i> <i>can put both stars along STIS slit between 08 Dec and 30 Dec although only 8 Dec - 17 Dec overlaps with TESS</i> <i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> <i>UVI photometry all a factor of 2.17 to 2.37 above nominal scaled spectrum. See cvso-165-sed-vs-photo-revised.png</i> Category=STAR Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR] Extended=NO</p>					

Proposal 16114 - CVSO-165-COS (2C) - ULLYSES K-type T Tauri stars in Orion OBlb Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	ACQ/Image (2) CVSO-165 (COS.ta.146 0402)	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				157 Secs (157 Secs) [==>]	[1]
	<p><i>Comments: Use S/N= 40 (2x recommended) with baseline SED to allow for fainter than expected target. Baseline calculation with CVSO-165_sed.fits: COS.ta.1460398, 157s for S/N = 40, B.P.=1.43 BOP calculation with cvso165_lya2_x4.00_etc.txt gives COS.ta.1460402, B.P. = 5.7</i></p> <p><i>Calculation for blue companion to background star - assume U=15.25 is all due to a hot O3V companion of background ~K2 star - get COS.ta.1460401 with B.P. =30.7, so obs is safe even in this extreme case. If use s dss u=17.186 measured for companion and assume an O3 star get COS.ta.1460403 with B.P. = 10.</i></p>								
	2	G130M/129 (2) CVSO-165 1-3 (COS.sp.146 0408)	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=17 88; FP-POS=3			1898 Secs (1898 Secs) [==>]	[1]
	<p><i>Comments: BOP check spectrum cvso165_lya2_x4.00_etc.txt, COS.sp.1460408, B.P. still geo-coronal lyman alpha Baseline CVSO-165_sed.fits for S/N, COS.sp.1460409</i></p> <p><i>cvso165_lya2_etc.txt; cos.fuv.g130m.c1291.psa.mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440</i> <i>M*: 0.91 ; log(dm/dt): -8.43</i> <i>For exptime=2301.2 s, spectral region:</i> <i>1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 336.7 cts/s/segment</i> <i>brightest pixel: 0.015 cts/s/pix at 1214.2 A</i> <i>Calculation performed 2020-07-30T14:21:34, v0.9</i></p>								
3	G160M/161 (2) CVSO-165 1-1 (COS.sp.146 0412)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=1			1177 Secs (1177 Secs) [==>]	[2]	
<p><i>Comments: 4X for BOP: cvso165_lya2_x4.00_etc.txt, COS.sp.1460412 baseline for S/N CVSO-165_sed.fits, COS.sp.1460410, B.P. = 0.033 cnts/pixel/s</i></p> <p><i>cvso165_lya2_etc.txt; cos.fuv.g160m.c1611.psa.mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440</i> <i>M*: 0.91 ; log(dm/dt): -8.43</i> <i>For exptime=2680.0 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 83.9 cts/s/segment</i> <i>brightest pixel: 0.008 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:32, v0.9</i></p>									
4	G160M/161 (2) CVSO-165 1-3 (COS.sp.146 0412)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=3			1177 Secs (1177 Secs) [==>]	[2]	
<p><i>Comments: 4X for BOP: cvso165_lya2_x4.00_etc.txt, COS.sp.1460412 baseline for S/N CVSO-165_sed.fits, COS.sp.1460410, B.P. = 0.033 cnts/pixel/s</i></p> <p><i>cvso165_lya2_etc.txt; cos.fuv.g160m.c1611.psa.mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440</i> <i>M*: 0.91 ; log(dm/dt): -8.43</i> <i>For exptime=2680.0 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 83.9 cts/s/segment</i> <i>brightest pixel: 0.008 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:32, v0.9</i></p>									



Proposal 16114 - CVSO-165-COS (2D) - ULLYSES K-type T Tauri stars in Orion OBIb Star Forming Region

Tue Oct 27 18:01:15 GMT 2020

Proposal 16114, CVSO-165-COS (2D), implementation

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

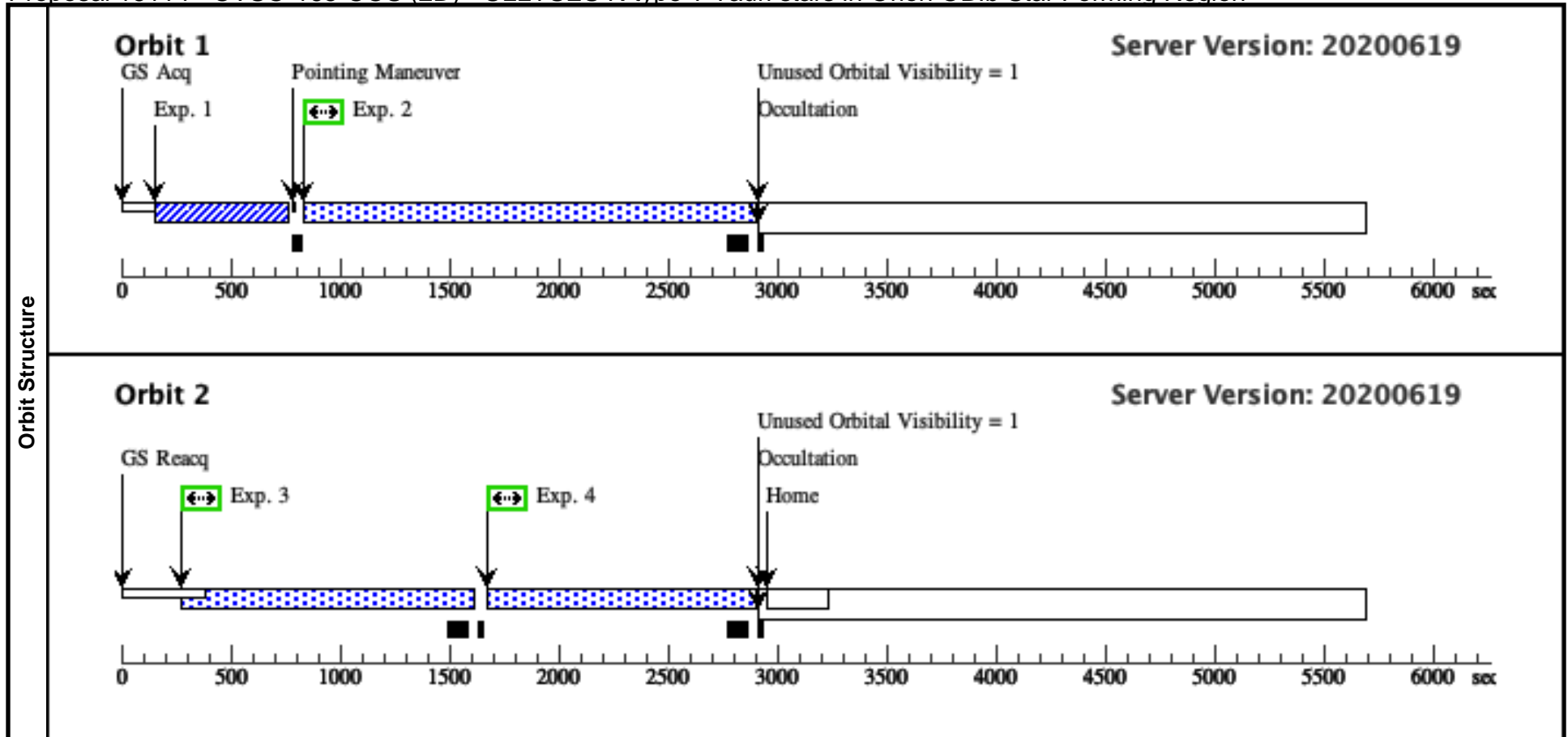
Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:08:05:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:15:05:00

Comments: vstatus; 2C; CVSO-165; P/COS approved for submission; P/CP 02/09/20; internal review complete ; C/DS 16/09/20
vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-165 ; COS ; CP
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?; PSA MIRRORB, S/N=40 (2X normal to allow for fainter than expected target)
vcheck; Possible ACQ or Sci spoilers?; -----
vcheck; Field BOT clear?; Yes, GSC2 version of target shows up as unsafe, but target easily safe when estimated spectrum is used.
vcheck; Visual BOT check for stars not in catalog?; companion at 5" not in GSC2, but easily cleared with Gaia mag and color (see disucssion in target comments)
vcheck; Orbit packing finalized?; Yes ...
obtained 82.5% of c1291 goal, and 87.8% of c1611
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; Yes, 2S, 2C, 2D within 1 day
vcheck; phase constraint for ground based observations added?; -----
vcheck; BETWEENS for coordinated observations added?; -----
vcheck; Is visit ready for int. review?; -----
 Allocated COS orbits = 4

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	CVSO-165 Alt Name1: J05390257-0120323	RA: 05 39 2.5736 (84.7607233d) Dec: -01 20 32.45 (-1.34235d) Equinox: J2000	Proper Motion RA: -0.396457276 mas/yr Proper Motion Dec: -1.656458039 mas/yr Parallax: 0.002980237415" Epoch of Position: 2015.5	V=13.68 SpT=K6; A_V=0.00; U=15.25; V=13.73; I=12.33; J=11.1	Reference Frame: ICRS
	<p><i>Comments: CVSO-165 : J05390257-0120323</i> Region: Ori OBIb Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05390257-0120323&submit=submit+id Target coordinates are from Gaia DR2. Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv cvso165_lya2_etc.txt Calculation performed 2020-07-30T14:21:34, v0.4</p> <hr/> <p><i>tstatus; CVSO-165; P/COS approved for submission; S/STIS Ready for internal review; P/CP 01/08/20; S/CP 01/08/20</i> <i>tcheck; APT/SIMBAD target names: ; Kiso A-0904 76; CVSO 165</i> <i>tcheck; Target info verification status?; good, but has a visual companion ...</i> <i>companion at 5.432" and PA = 321.5.</i> <i>G=15.054, Bp=15.5261, Rp = 14.3965, Bp - Rp=1.1296, Parallax=0.7217, SDSS u = 17.186</i> <i>Gaia color matches~ K2.5V spectral type, but large distance suggests too luminous for a dwarf</i> <i>vs intended target with</i> <i>G=13.299, Bp=14.0800, Rp = 12.4122, Bp - Rp=1.6678, Parallax=2.9802, SDSS u = 16.725</i> <i>can put both stars along STIS slit between 08 Dec and 30 Dec although only 8 Dec - 17 Dec overlaps with TESS</i> <i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> <i>UVI photometry all a factor of 2.17 to 2.37 above nominal scaled spectrum. See cvso-165-sed-vs-photo-revised.png</i> Category=STAR Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR] Extended=NO</p>				

Proposal 16114 - CVSO-165-COS (2D) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	ACQ/Image (2) CVSO-165 (COS.ta.146 0402)	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				157 Secs (157 Secs) [==>]	[1]
	<p>Comments: Use S/N= 40 (2x recommended) with baseline SED to allow for fainter than expected target. Baseline calculation with CVSO-165_sed.fits: COS.ta.1460398, 157s for S/N = 40, B.P.=1.43 BOP calculation with cvso165_lya2_x4.00_etc.txt gives COS.ta.1460402, B.P. = 5.7</p> <p>Calculation for blue companion to background star - assume U=15.25 is all due to a hot O3V companion of background ~K2 star - get COS.ta.1460401 with B.P. =30.7, so obs is safe even in this extreme case. If use s dss u=17.186 measured for companion and assume an O3 star get COS.ta.1460403 with B.P. = 10.</p>								
	2	G130M/129 (2) CVSO-165 1-4 (COS.sp.146 0408)	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=17 88; FP-POS=4			1898 Secs (1898 Secs) [==>]	[1]
	<p>Comments: BOP check spectrum cvso165_lya2_x4.00_etc.txt, COS.sp.1460408, B.P. still geo-coronal lyman alpha Baseline CVSO-165_sed.fits for S/N, COS.sp.1460409</p> <p>cvso165_lya2_etc.txt; cos.fuv.g130m.c1291.psa.mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 For exptime=2301.2 s, spectral region: 1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 336.7 cts/s/segment brightest pixel: 0.015 cts/s/pix at 1214.2 A Calculation performed 2020-07-30T14:21:34, v0.9</p>								
3	G160M/161 (2) CVSO-165 1-2 (COS.sp.146 0412)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=2			1177 Secs (1177 Secs) [==>]	[2]	
<p>Comments: 4X for BOP: cvso165_lya2_x4.00_etc.txt, COS.sp.1460412 baseline for S/N CVSO-165_sed.fits, COS.sp.1460410, B.P. = 0.033 cnts/pixel/s</p> <p>cvso165_lya2_etc.txt; cos.fuv.g160m.c1611.psa.mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 For exptime=2680.0 s, spectral region: 1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 83.9 cts/s/segment brightest pixel: 0.008 cts/s/pix at 1548.4 A Calculation performed 2020-07-30T14:21:32, v0.9</p>									
4	G160M/161 (2) CVSO-165 1-4 (COS.sp.146 0412)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=10 67; FP-POS=4			1177 Secs (1177 Secs) [==>]	[2]	
<p>Comments: 4X for BOP: cvso165_lya2_x4.00_etc.txt, COS.sp.1460412 baseline for S/N CVSO-165_sed.fits, COS.sp.1460410, B.P. = 0.033 cnts/pixel/s</p> <p>cvso165_lya2_etc.txt; cos.fuv.g160m.c1611.psa.mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 For exptime=2680.0 s, spectral region: 1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 83.9 cts/s/segment brightest pixel: 0.008 cts/s/pix at 1548.4 A Calculation performed 2020-07-30T14:21:32, v0.9</p>									



Proposal 16114 - CVSO-165-STIS (2S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

Tue Oct 27 18:01:15 GMT 2020

Proposal 16114, CVSO-165-STIS (2S), implementation
Diagnostic Status: No Diagnostics
 Scientific Instruments: STIS/NUV-MAMA, STIS/CCD
 Special Requirements: SCHED 100%; ORIENT 6.5D TO 6.5 D; ORIENT 186.5D TO 186.5 D; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:09:40:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:16:40:00; GROUP 2S,2C,2D WITHIN 1D
 Comments: vstatus; 2S; CVSO-165; S/STIS approved for submission; P/CP 11/08/20 ; internal review complete ; S/DW 11/09/20
 vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-165 ; STIS ; CP
 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?; F28X50LP, S/N=80
 vcheck; Possible ACQ or Sci spoilers?; companion star is too faint to endanger ACQ, and well away along slit from primary target; companion has Gaia Rp 2 mags fainter than primary target
 vcheck; Field BOT clear?; Yes
 vcheck; Visual BOT check for stars not in catalog?; OK, companion is safe and well displaced
 vcheck; Orbit packing finalized?; Yes
 vcheck; Buffer times optimized?; yes
 vcheck; Verify visit grouping correct; Yes, 2S, 2C, 2D within 1 day
 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 STIS orbits = 1

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	CVSO-165 Alt Name1: J05390257-0120323	RA: 05 39 2.5736 (84.7607233d) Dec: -01 20 32.45 (-1.34235d) Equinox: J2000	Proper Motion RA: -0.396457276 mas/yr Proper Motion Dec: -1.656458039 mas/yr Parallax: 0.002980237415" Epoch of Position: 2015.5	V=13.68 SpT=K6; A_V=0.00; U=15.25; V=13.73; I=12.33; J=11.1	Reference Frame: ICRS
<p>Comments: CVSO-165 : J05390257-0120323 Region: Ori OB1b Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05390257-0120323&submit=submit+id Target coordinates are from Gaia DR2. Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv cvso165_lya2_etc.txt Calculation performed 2020-07-30T14:21:34, v0.4</p> <hr/> <p>tstatus; CVSO-165; P/COS approved for submission; S/STIS Ready for internal review; P/CP 01/08/20; S/CP 01/08/20 tcheck; APT/SIMBAD target names: ; Kiso A-0904 76; CVSO 165 tcheck; Target info verification status?; good, but has a visual companion ... companion at 5.432" and PA = 321.5. G=15.054, Bp=15.5261, Rp = 14.3965, Bp - Rp=1.1296, Parallax=0.7217, SDSS u = 17.186 Gaia color matches~ K2.5V spectral type, but large distance suggests too luminous for a dwarf vs intended target with G=13.299, Bp=14.0800, Rp = 12.4122, Bp - Rp=1.6678, Parallax=2.9802, SDSS u = 16.725 can put both stars along STIS slit between 08 Dec and 30 Dec although only 8 Dec - 17 Dec overlaps with TESS tcheck; Coordinates & P.M. verified, epoch checked?; Yes tcheck; Adopted SED compared to Observations?; yes ... UVI photometry all a factor of 2.17 to 2.37 above nominal scaled spectrum. See cvso-165-sed-vs-photo-revised.png Category=STAR Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR] Extended=NO</p>					

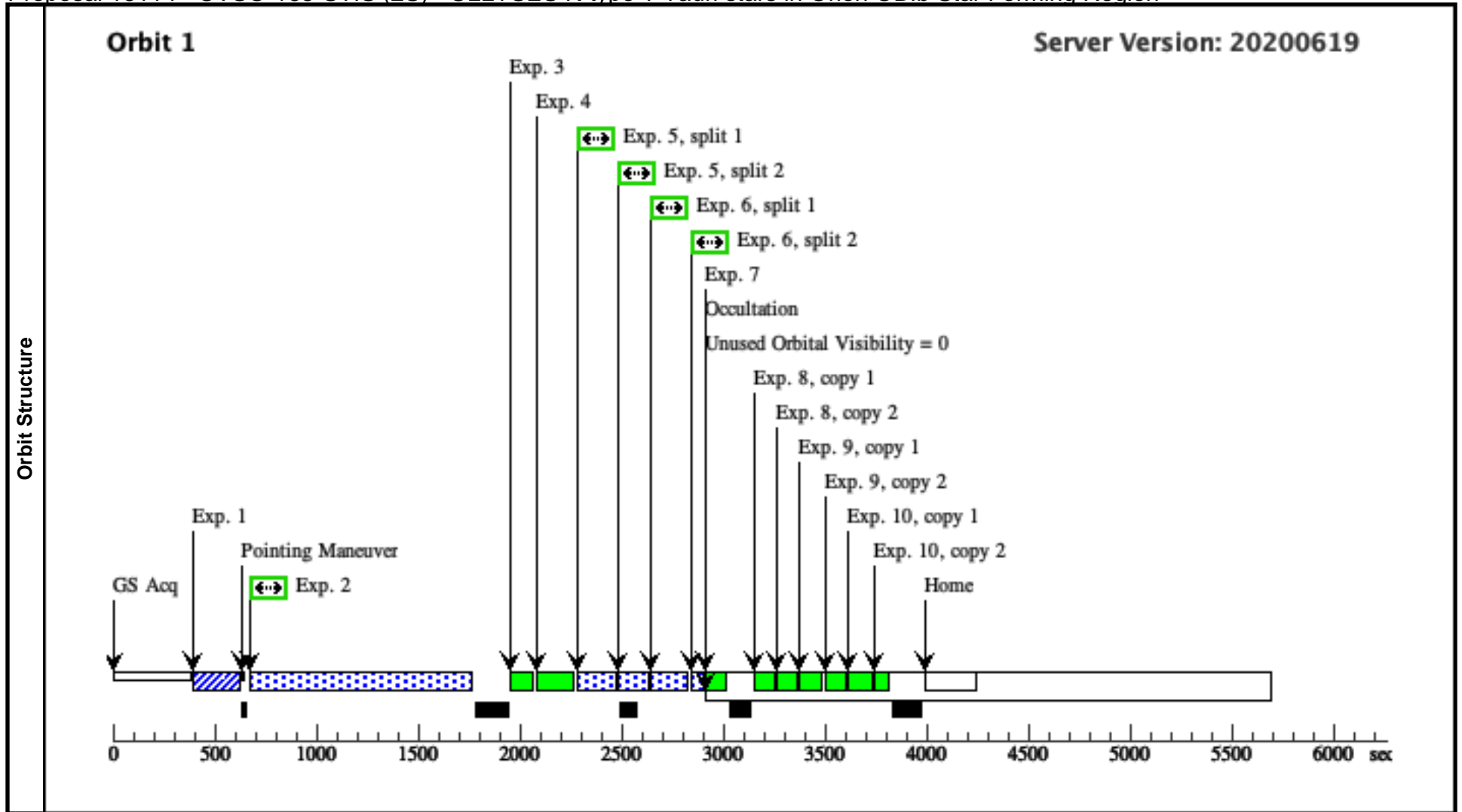
Proposal 16114 - CVSO-165-STIS (2S) - ULLYSES K-type T Tauri stars in Orion OBIb Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1460414)	(2) CVSO-165	STIS/CCD, ACQ, F28X50LP	MIRROR				0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: STIS.ta.1460414 gives S/N=80 with F28x50LP for baseline spectrum in 0.41 s</i>									
2	G230L/2376 (STIS.sp.1460418)	(2) CVSO-165	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	WAVECAL=NO; BUFFER-TIME=46 9			937 Secs (937 Secs) [==>]	[1]
<i>Comments: BOP calculation using 4X spectrum cvso165_lya2_x4.00_etc.txt gives STIS.sp.1460418 with B.P. = 2.053 cnts/pixel/s Baseline calculation STIS.sp.1460417 gets S/N=40.84 at 2789</i>									
<i>cvso165_lya2_etc.txt; stis,mvmama,g230l,c2376,52x2,mjd#59305 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 For exptime=160.5 s, spectral region: 2800.0 +- 15.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 2436.6 cts/s/segment brightest pixel: 0.515 cts/s/pix at 2790.4 A Calculation performed 2020-07-30T14:21:34, v0.9 cited ETC used Lya x 4 -- with brightest 2.053, global 2806.4</i>									
3	G230L/2376 WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A				[==>]	[1]
4	G430L/4300 WAVECAL	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A				[==>]	[1]
5	G430L/4300 (STIS.sp.1460416)	(2) CVSO-165	STIS/CCD, ACCUM, 52X2	G430L 4300 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4			225 Secs (225 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
<i>Comments: STIS.sp.1460416 needs 224.9s to reach S/N=10 at 4000 angstroms using baseline scaling In this case, the stellar continuum looks to be brighter than the , so STIS.sp.1463444 suggests only 66s needed- We'll compromise and use 225s as the adopted exposure time to save more time for the G230L</i>									
<i>cvso165_lya2_etc.txt; stis,ccd,g430l,c4300,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.91 ; log(dm/dt): -8.43 For exptime=92.1 s, n_reads=2, spectral region: 4000.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 35954.9 cts/s/segment brightest pixel: 10.903 cts/s/pix at 4871.0 A Calculation performed 2020-07-30T14:21:34, v0.9 cited ETC used sed, with brightest, global rates as given above -- but time not multiplied by 2</i>									

Exposures

Proposal 16114 - CVSO-165-STIS (2S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

6	G750L/7751 (2) CVSO-165 (STIS.sp.14 60415)	STIS/CCD, ACCUM, 52X2	G750L 7751 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4	54.4 Secs (54.4 Secs)	
					[==>(Split 1)]	[1]
<p><i>Comments: STIS.sp.1460415 needs 26.1s with baseline SED to get S/N=20 at 5700 angstroms</i></p> <p><i>cvso165_1ya2_etc.txt; stis,ccd,g750l,c7751,52x2,mjd#59305</i></p> <p><i>WARNING: operating mode = ACCUM</i></p> <p><i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i></p> <p><i>Spectral type: K6 ; A_V: 0.0 ; Distance (pc): 440</i></p> <p><i>M*: 0.91 ; log(dm/dt): -8.43</i></p> <p><i>For exptime=11.1 s, n_reads=2, spectral region:</i></p> <p><i>5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel</i></p> <p><i>A factor of 2.0 has been applied to the exptime in each exposure.</i></p> <p><i>global countrate (brightest segment): 53833.2 cts/s/segment</i></p> <p><i>brightest pixel: 72.578 cts/s/pix at 6563.9 A</i></p> <p><i>Calculation performed 2020-07-30T14:21:34, v0.9</i></p> <p><i>cited ETC used sed, with brightest, global rates as given above</i></p>						
7	G750L/7751 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		[==>]	[1]
8	G750L/7751 CCDFLAT CCDFLAT 0	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
<p><i>Comments: Added extra 52x0.1 fringe flat for use with the second star in the slit</i></p>						
9	G750L/7751 CCDFLAT CCDFLAT 1	STIS/CCD, ACCUM, 0.3X0.09	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
10	G750L/7751 CCDFLAT CCDFLAT 2	STIS/CCD, ACCUM, 52X2	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]



Proposal 16114 - CVSO-58-COS (3C) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

Tue Oct 27 18:01:16 GMT 2020

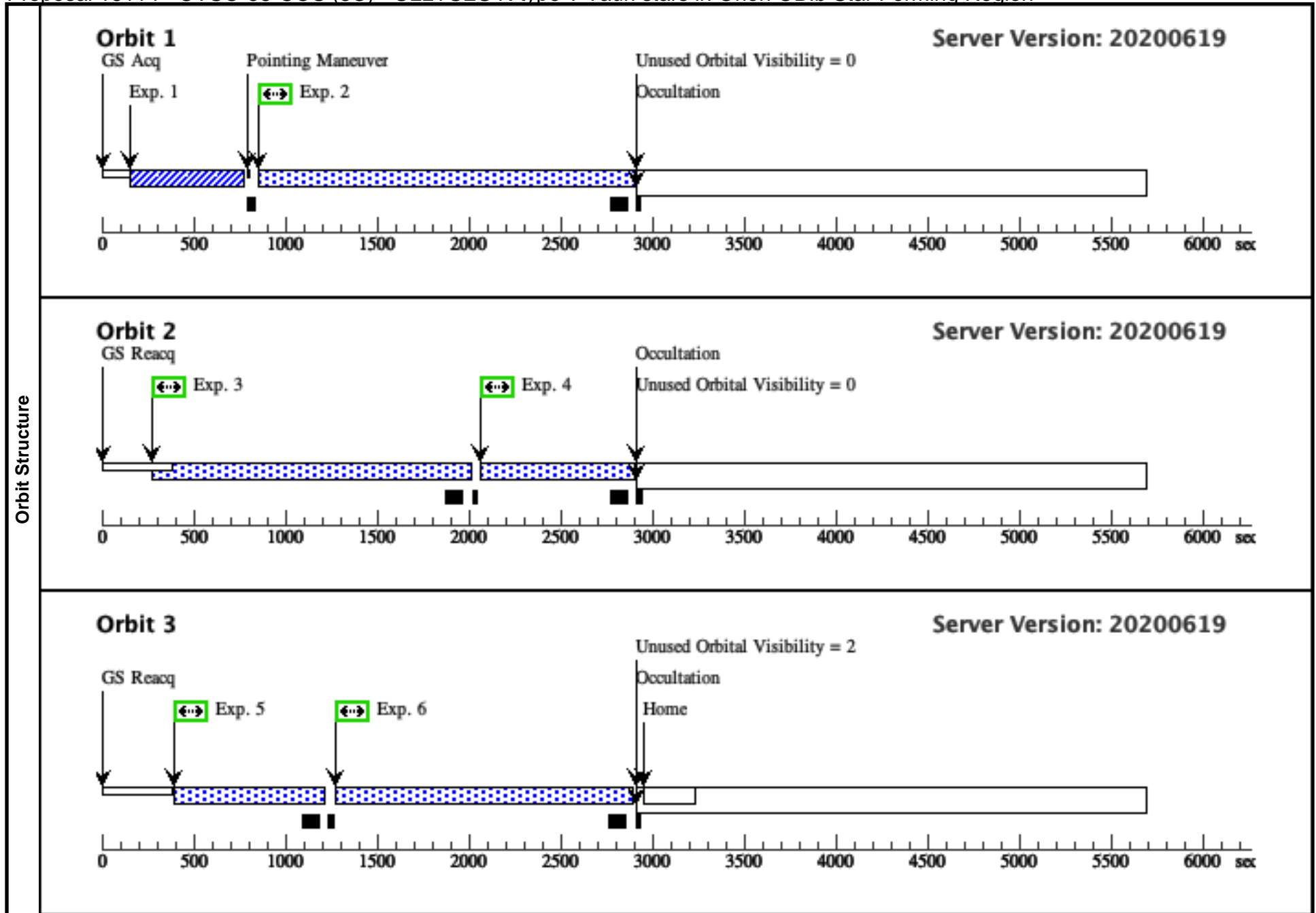
Visit	<p>Proposal 16114, CVSO-58-COS (3C), implementation</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:06:30:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:13:30:00</p> <p><i>Comments: vstatus; 3C; CVSO-58; P/COS approved for submission; P/CP 02/09/20; internal review complete ; C/DS 16/09/20</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-58 ; COS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; M-dwarf check complete and added to box folder?; N/A</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; yes</i></p> <p><i>vcheck; Field images checked & saved?; yes</i></p> <p><i>vcheck; Selected ACQ strategy?; PSA, MIRROB, S/N=40 requires texp=163.4s</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?;None</i></p> <p><i>vcheck; Field BOT clear?; yes</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; all clear</i></p> <p><i>vcheck; Orbit packing finalized?; yes ...</i></p> <p><i>Awkward to split our 6 exposures over 5 orbits. Got 81.8% of requested c1291 and 106.3% of c1611.</i></p> <p><i>Split into 3+2 orbit visits. Split as follows</i></p> <p><i>3 orbit visit 3C: c1291-4 1185s; c1611-1,2,3 1570s each with FP-2 split over two orbits</i></p> <p><i>2 orbit visit 3D:c1291-3 1185s+273s; c1291-4, 274s; c1611-4 1570s</i></p> <p><i>could get more ~100s more c1291 time if we're willing to live with uneven split between FPPOS 3 and 4 exposure times.</i></p> <p><i>vcheck; Buffer times optimized?; yes</i></p> <p><i>vcheck; Verify visit grouping correct; Group 3S, 3C, and 3D within 1 day</i></p> <p><i>vcheck; phase constraint for ground based observations added?; yes</i></p> <p><i>vcheck; BETWEENS for coordinated observations added?; Between 19 Nov 2020 and 17 Dec 2020</i></p> <p><i>vcheck; Is visit ready for int. review?; Yes</i></p> <p><i>Allocated COS orbits = 5</i></p>																						
	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(3)</td> <td>CVSO-58</td> <td>RA: 05 29 23.2638 (82.3469325d)</td> <td>Proper Motion RA: 1.165456864 mas/yr</td> <td>V=14.93</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: J05292326-0125153</td> <td>Dec: -01 25 15.47 (-1.42096d) Equinox: J2000</td> <td>Proper Motion Dec: -0.968294368 mas/yr Parallax: 0.002774173093999996" Epoch of Position: 2015.5</td> <td>SpT=K7; A_V=0.12; U=15.52; V=14.79; I=13.27; J=12.1</td> <td></td> </tr> </tbody> </table> <p><i>Comments: CVSO-58 : J05292326-0125153</i></p> <p><i>Region: Ori OB1b</i></p> <p><i>Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05292326-0125153&submit=submit+id</i></p> <p><i>Target coordinates are from Gaia DR2.</i></p> <p><i>Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440</i></p> <p><i>M*: 0.78 ; log(dm/dt): -8.35</i></p> <p><i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i></p> <p><i>cvso58_lya2_etc.txt</i></p> <p><i>Calculation performed 2020-07-30T14:21:50, v0.4</i></p> <p>-----</p> <p><i>tstatus: CVSO-58; P/COS approved for submission; S/STIS ready for internal review; P/CP 11/08/20; S/CP 11/08/20</i></p> <p><i>tcheck; APT/SIMBAD target names: ; Kiso A-0903 176; [HCB2007] OB1b 209; CVSO 58</i></p> <p><i>tcheck; Target info verification status?; Done</i></p> <p><i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i></p> <p><i>tcheck; Adopted SED compared to Observations?; Yes, ...</i></p> <p><i>Fair agreement between UVI photometry and adopted SED (within a factor of 2) cvso-58-sed-vs-photo-revised.png</i></p> <p><i>Observed G160M spectrum has average continuum 2-3x higher than adopted SED (cvso-58-sed-vs-g160m.png), but still only 20 observed counts/s integrated over entire G160M spectrum.</i></p> <p><i>but peak of brightest observed emission lines near 1550 Angstroms are a factor of a few lower than adopted SED (cvso-58-sed-vs-g160m-detail.png), and this is what determines BOP limits in this case.</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]</i></p> <p><i>Extended=NO</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(3)	CVSO-58	RA: 05 29 23.2638 (82.3469325d)	Proper Motion RA: 1.165456864 mas/yr	V=14.93	Reference Frame: ICRS		Alt Name1: J05292326-0125153	Dec: -01 25 15.47 (-1.42096d) Equinox: J2000	Proper Motion Dec: -0.968294368 mas/yr Parallax: 0.002774173093999996" Epoch of Position: 2015.5	SpT=K7; A_V=0.12; U=15.52; V=14.79; I=13.27; J=12.1
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																		
(3)	CVSO-58	RA: 05 29 23.2638 (82.3469325d)	Proper Motion RA: 1.165456864 mas/yr	V=14.93	Reference Frame: ICRS																		
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Proposal 16114 - CVSO-58-COS (3C) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	ACQ/Image (COS.ta.146 0424)	(3) CVSO-58	COS/NUV, ACQ/IMAGE, PSA	MIRRORB			163.4 Secs (163.4 Secs) [==>]	[1]	
	<p>Comments: Baseline calc CVSO-58_sed.fits, S/N=40, COS.ta.1460423, B.P. = 1.374 cnts/pix/s, exptime=163.4s BOP calc COS.ta.1460424, B.P. = 5.477</p>									
	2	G130M/129 1-4 (COS.sp.146 0432)	(3) CVSO-58	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=17 75; FP-POS=4			1885 Secs (1885 Secs) [==>]	[1]
	<p>Comments: 4X BOP check: COS.sp.1460432, BP is lyman-alpha geo-coronal Nominal S/N calculation : COS.sp.1460431</p> <p>cvso58_lya2_etc.txt; cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=2636.9 s, spectral region: 1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 316.2 cts/s/segment brightest pixel: 0.005 cts/s/pix at 1304.9 A Calculation performed 2020-07-30T14:21:50, v0.9</p>									
3	G160M/161 1-1 (COS.sp.146 0428)	(3) CVSO-58	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=14 50; FP-POS=1			1570 Secs (1570 Secs) [==>]	[2]	
<p>Comments: 4x BOP spectrum cvso58_lya2_x4.00_etc.txt; COS.sp.1460428; B.P.= 0.030 cnts/pix/s Nominal S/N calculation COS.sp.1460429</p> <p>cvso58_lya2_etc.txt; cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=2952.6 s, spectral region: 1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 83.1 cts/s/segment brightest pixel: 0.008 cts/s/pix at 1548.4 A Calculation performed 2020-07-30T14:21:47, v0.9</p>										
4	G160M/161 1-2 (COS.sp.146 0428)	(3) CVSO-58	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=67 5; FP-POS=2			785 Secs (785 Secs) [==>]	[2]	
<p>Comments: 4x BOP spectrum cvso58_lya2_x4.00_etc.txt; COS.sp.1460428; B.P.= 0.030 cnts/pix/s Nominal S/N calculation COS.sp.1460429</p> <p>cvso58_lya2_etc.txt; cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=2952.6 s, spectral region: 1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 83.1 cts/s/segment brightest pixel: 0.008 cts/s/pix at 1548.4 A Calculation performed 2020-07-30T14:21:47, v0.9</p>										

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5	G160M/161 (3) CVSO-58 1-2 (COS.sp.146 0428)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=66 5; FP-POS=2	775 Secs (775 Secs)	[3]
<p><i>Comments: 4x BOP spectrum cvso58_lya2_x4.00_etc.txt; COS.sp.1460428; B.P. = 0.030 cnts/pix/s Nominal S/N calculation COS.sp.1460429</i></p> <p><i>cvso58_lya2_etc.txt; cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440</i> <i>M*: 0.78 ; log(dm/dt): -8.35</i> <i>For exptime=2952.6 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 83.1 cts/s/segment</i> <i>brightest pixel: 0.008 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:47, v0.9</i></p>					[==>]	
6	G160M/161 (3) CVSO-58 1-3 (COS.sp.146 0428)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=14 50; FP-POS=3	1570 Secs (1570 Secs)	[3]
<p><i>Comments: 4x BOP spectrum cvso58_lya2_x4.00_etc.txt; COS.sp.1460428; B.P. = 0.030 cnts/pix/s Nominal S/N calculation COS.sp.1460429</i></p> <p><i>cvso58_lya2_etc.txt; cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440</i> <i>M*: 0.78 ; log(dm/dt): -8.35</i> <i>For exptime=2952.6 s, spectral region:</i> <i>1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 83.1 cts/s/segment</i> <i>brightest pixel: 0.008 cts/s/pix at 1548.4 A</i> <i>Calculation performed 2020-07-30T14:21:47, v0.9</i></p>					[==>]	



Proposal 16114 - CVSO-58-COS (3D) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

Tue Oct 27 18:01:16 GMT 2020

Visit	<p>Proposal 16114, CVSO-58-COS (3D), implementation</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:08:05:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:15:05:00</p> <p><i>Comments: vstatus; 3C; CVSO-58; P/COS approved for submission; P/CP 02/09/20; internal review complete ; C/DS 16/09/20</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-58 ; COS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; M-dwarf check complete and added to box folder?; N/A</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; yes</i></p> <p><i>vcheck; Field images checked & saved?; -----</i></p> <p><i>vcheck; Selected ACQ strategy?; PSA, MIRROB, S/N=40 requires texp=163.4s</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?;None</i></p> <p><i>vcheck; Field BOT clear?; yes</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; all clear</i></p> <p><i>vcheck; Orbit packing finalized?; -----</i></p> <p><i>vcheck; Buffer times optimized?; -----</i></p> <p><i>vcheck; Verify visit grouping correct; -----</i></p> <p><i>vcheck; phase constraint for ground based observations added?; -----</i></p> <p><i>vcheck; BETWEENS for coordinated observations added?; -----</i></p> <p><i>vcheck; Is visit ready for int. review?; -----</i></p> <p><i>Allocated COS orbits = 5</i></p>																						
	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(3)</td> <td>CVSO-58</td> <td>RA: 05 29 23.2638 (82.3469325d)</td> <td>Proper Motion RA: 1.165456864 mas/yr</td> <td>V=14.93</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: J05292326-0125153</td> <td>Dec: -01 25 15.47 (-1.42096d) Equinox: J2000</td> <td>Proper Motion Dec: -0.968294368 mas/yr Parallax: 0.002774173093999996" Epoch of Position: 2015.5</td> <td>SpT=K7; A_V=0.12; U=15.52; V=14.79; I=13.27; J=12.1</td> <td></td> </tr> </tbody> </table> <p><i>Comments: CVSO-58 : J05292326-0125153</i></p> <p><i>Region: Ori OB1b</i></p> <p><i>Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05292326-0125153&submit=submit+id</i></p> <p><i>Target coordinates are from Gaia DR2.</i></p> <p><i>Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440</i></p> <p><i>M*: 0.78 ; log(dm/dt): -8.35</i></p> <p><i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i></p> <p><i>cvso58_lya2_etc.txt</i></p> <p><i>Calculation performed 2020-07-30T14:21:50, v0.4</i></p> <p>-----</p> <p><i>tstatus; CVSO-58; P/COS approved for submission; S/STIS ready for internal review; P/CP 11/08/20; S/CP 11/08/20</i></p> <p><i>tcheck; APT/SIMBAD target names: ; Kiso A-0903 176; [HCB2007] OB1b 209; CVSO 58</i></p> <p><i>tcheck; Target info verification status?; Done</i></p> <p><i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i></p> <p><i>tcheck; Adopted SED compared to Observations?; Yes, ...</i></p> <p><i>Fair agreement between UVI photometry and adopted SED (within a factor of 2) cvso-58-sed-vs-photo-revised.png</i></p> <p><i>Observed G160M spectrum has average continuum 2-3x higher than adopted SED (cvso-58-sed-vs-g160m.png), but still only 20 observed counts/s integrated over entire G160M spectrum.</i></p> <p><i>but peak of brightest observed emission lines near 1550 Angstroms are a factor of a few lower than adopted SED (cvso-58-sed-vs-g160m-detail.png), and this is what determines BOP limits in this case.</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]</i></p> <p><i>Extended=NO</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(3)	CVSO-58	RA: 05 29 23.2638 (82.3469325d)	Proper Motion RA: 1.165456864 mas/yr	V=14.93	Reference Frame: ICRS		Alt Name1: J05292326-0125153	Dec: -01 25 15.47 (-1.42096d) Equinox: J2000	Proper Motion Dec: -0.968294368 mas/yr Parallax: 0.002774173093999996" Epoch of Position: 2015.5	SpT=K7; A_V=0.12; U=15.52; V=14.79; I=13.27; J=12.1
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Proposal 16114 - CVSO-58-COS (3D) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

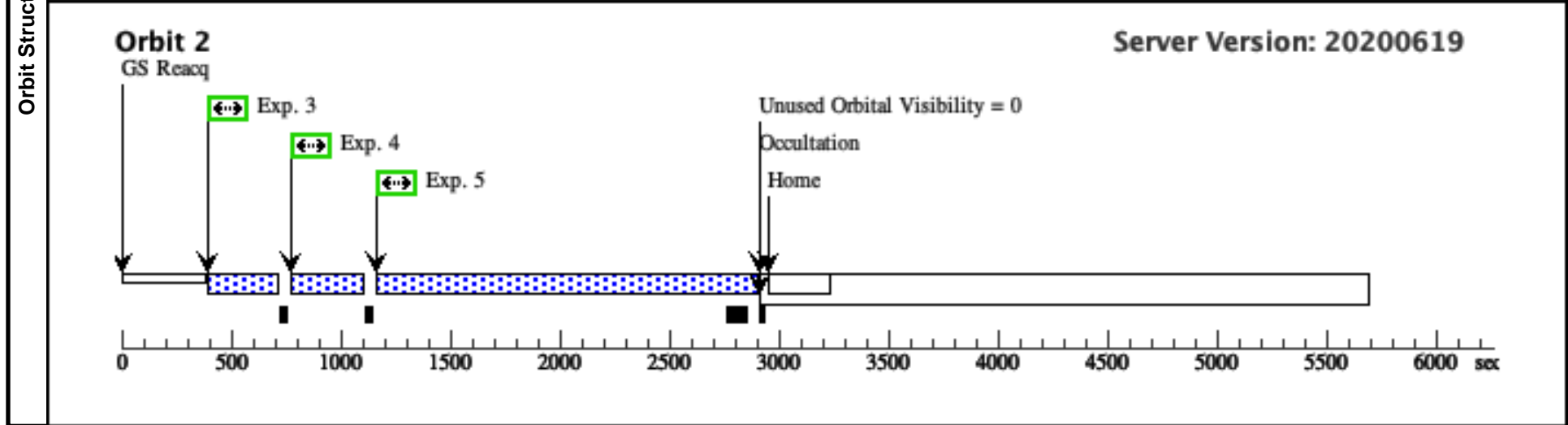
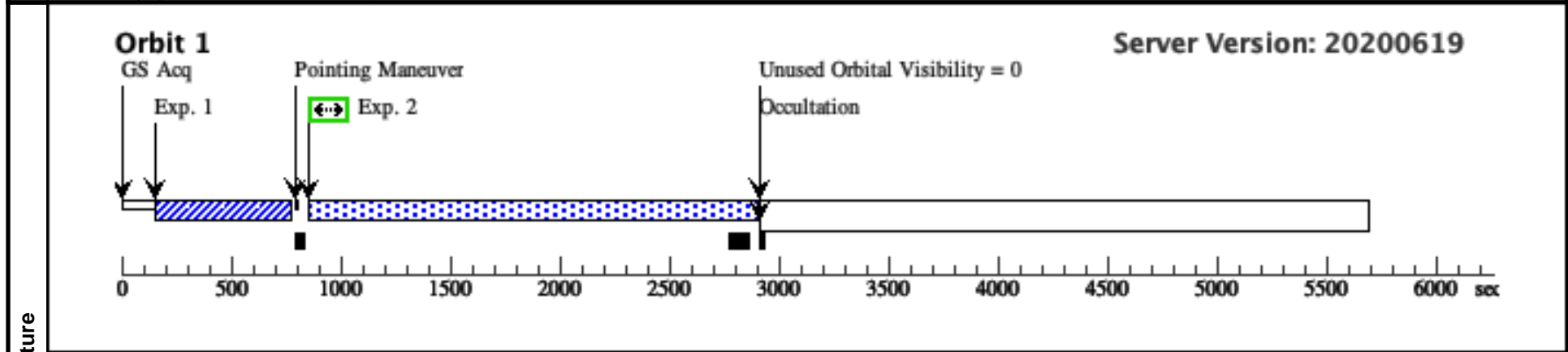
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	ACQ/Image (COS.ta.146 0424)	(3) CVSO-58	COS/NUV, ACQ/IMAGE, PSA	MIRRORB			163.4 Secs (163.4 Secs) [==>]	[1]	
	<p>Comments: Baseline calc CVSO-58_sed.fits, S/N=40, COS.ta.1460423, B.P. = 1.374 cts/pix/s, exptime=163.4s BOP calc COS.ta.1460424, B.P. = 5.477</p>									
	2	G130M/129 1-3 (COS.sp.146 0432)	(3) CVSO-58	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=17 75; FP-POS=3			1885 Secs (1885 Secs) [==>]	[1]
	<p>Comments: 4X BOP check: COS.sp.1460432, BP is lyman-alpha geo-coronal Nominal S/N calculation : COS.sp.1460431</p> <p>cvso58_lya2_etc.txt; cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=2636.9 s, spectral region: 1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 316.2 cts/s/segment brightest pixel: 0.005 cts/s/pix at 1304.9 A Calculation performed 2020-07-30T14:21:50, v0.9</p>									
3	G130M/129 1-3 (COS.sp.146 0432)	(3) CVSO-58	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=17 75; FP-POS=3			273 Secs (273 Secs) [==>]	[2]	
<p>Comments: 4X BOP check: COS.sp.1460432, BP is lyman-alpha geo-coronal Nominal S/N calculation : COS.sp.1460431</p> <p>cvso58_lya2_etc.txt; cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=2636.9 s, spectral region: 1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 316.2 cts/s/segment brightest pixel: 0.005 cts/s/pix at 1304.9 A Calculation performed 2020-07-30T14:21:50, v0.9</p>										
4	G130M/129 1-4 (COS.sp.146 0432)	(3) CVSO-58	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=17 75; FP-POS=4			274 Secs (274 Secs) [==>]	[2]	
<p>Comments: 4X BOP check: COS.sp.1460432, BP is lyman-alpha geo-coronal Nominal S/N calculation : COS.sp.1460431</p> <p>cvso58_lya2_etc.txt; cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=2636.9 s, spectral region: 1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 316.2 cts/s/segment brightest pixel: 0.005 cts/s/pix at 1304.9 A Calculation performed 2020-07-30T14:21:50, v0.9</p>										

Proposal 16114 - CVSO-58-COS (3D) - ULLYSES K-type T Tauri stars in Orion OBlb Star Forming Region

5	G160M/161 (3) CVSO-58 1-4 (COS.sp.146 0428)	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=14 50; FP-POS=4	1570 Secs (1570 Secs) [==>]	[2]
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Comments: 4x BOP spectrum cvso58_lya2_x4.00_etc.txt; COS.sp.1460428; B.P. = 0.030 cnts/pix/s
Nominal S/N calculation COS.sp.1460429

cvso58_lya2_etc.txt; cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv
Spectral type: K7; A_V: 0.12; Distance (pc): 440
M*: 0.78; log(dm/dt): -8.35
For exptime=2952.6 s, spectral region:
1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel
A factor of 2.0 has been applied to the exptime in each exposure.
global countrate (brightest segment): 83.1 cts/s/segment
brightest pixel: 0.008 cts/s/pix at 1548.4 A
Calculation performed 2020-07-30T14:21:47, v0.9



Proposal 16114 - CVSO-58-STIS (3S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

Tue Oct 27 18:01:16 GMT 2020

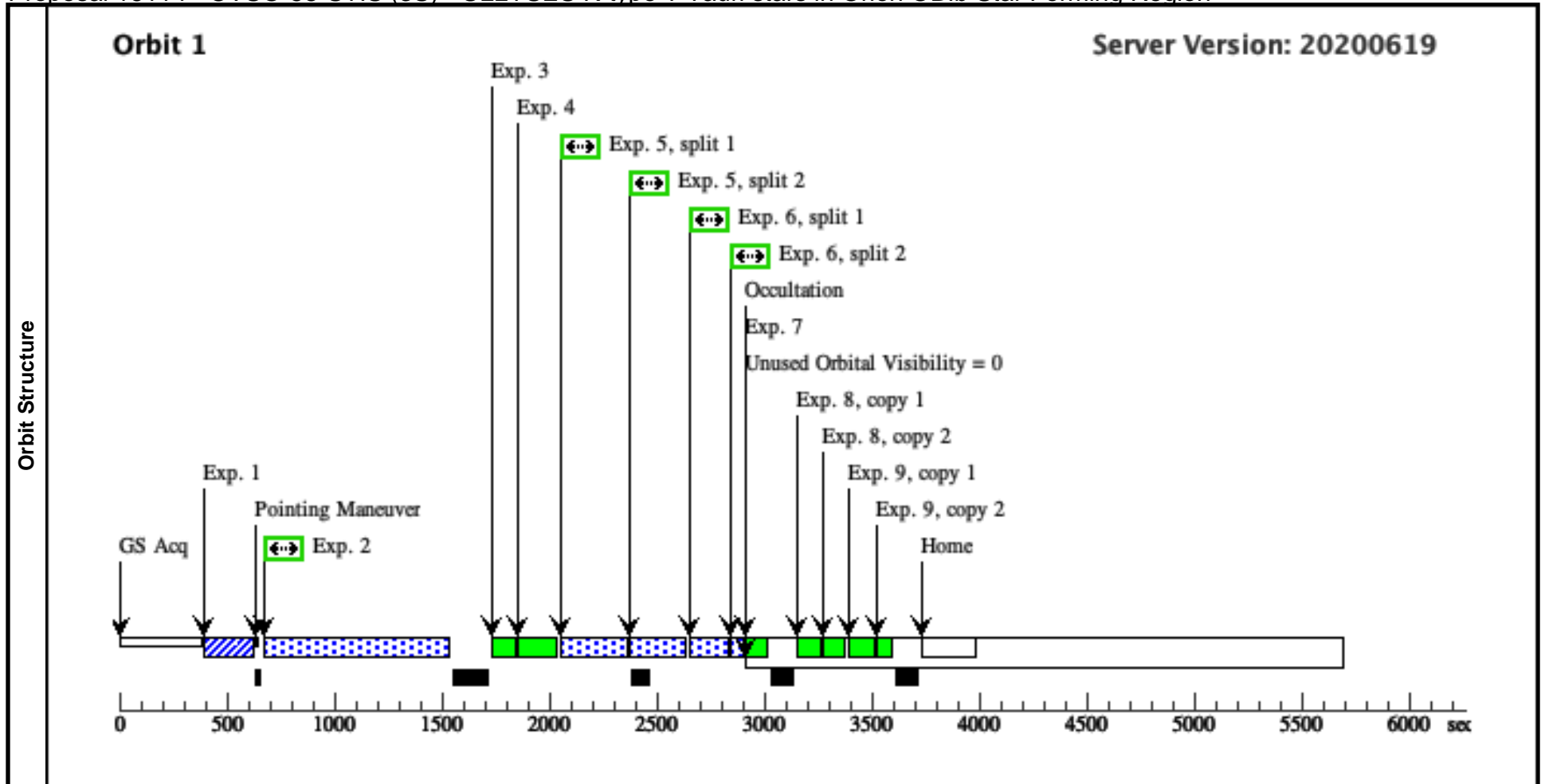
Visit	<p>Proposal 16114, CVSO-58-STIS (3S), implementation</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: STIS/NUV-MAMA, STIS/CCD</p> <p>Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:09:40:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:16:40:00; GROUP 3S,3C,3D WITHIN 1D</p> <p><i>Comments: vstatus; 3S; CVSO-58; S/STIS approved for submission; P/CP 12/08/20 ; internal review complete ; S/DW 11/09/20</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-58 ; STIS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; M-dwarf check complete and added to box folder?; N/A</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; Yes</i></p> <p><i>vcheck; Field images checked & saved?; yes</i></p> <p><i>vcheck; Selected ACQ strategy?; F28X50LP with S/N=80 (2x normal requirement)</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; none</i></p> <p><i>vcheck; Field BOT clear?; yes</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; clear</i></p> <p><i>vcheck; Orbit packing finalized?; yes</i></p> <p><i>vcheck; Buffer times optimized?; yes</i></p> <p><i>vcheck; Verify visit grouping correct; SEQ 3S, 3C, 3D within 1 orbit</i></p> <p><i>vcheck; phase constraint for ground based observations added?; yes</i></p> <p><i>vcheck; BETWEENS for coordinated observations added?; Yes</i></p> <p><i>vcheck; Is visit ready for int. review?; yes</i></p> <p><i>Allocated STIS orbits = 1</i></p>																						
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#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																		
(3)	CVSO-58	RA: 05 29 23.2638 (82.3469325d)	Proper Motion RA: 1.165456864 mas/yr	V=14.93	Reference Frame: ICRS																		
	Alt Name1: J05292326-0125153	Dec: -01 25 15.47 (-1.42096d) Equinox: J2000	Proper Motion Dec: -0.968294368 mas/yr Parallax: 0.002774173093999996" Epoch of Position: 2015.5	SpT=K7; A_V=0.12; U=15.52; V=14.79; I=13.27; J=12.1																			

Proposal 16114 - CVSO-58-STIS (3S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	ACQ (3) CVSO-58 (STIS.ta.1460500)	STIS/CCD, ACQ, F28X50LP	MIRROR				0.4 Secs (0.4 Secs) [==>]	[1]
	<i>Comments: Used baseline spectrum, but with S/N=80 to allow for fainter than expected target STIS.ta.1460500</i>								
	2	G230L/2376 (3) CVSO-58 (STIS.sp.1460505)	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	WAVECAL=NO; BUFFER-TIME=35 6			711 Secs (711 Secs) [==>]	[1]
	<i>Comments: baseline calculation STIS.sp.1460503 requires 167s, with B.P.=0.494 with actual exposure time STIS.sp.1460504 gives S/N=40 at peak of Mg II 4X BOP calculation STIS.sp.1460505 gives B.P. = 1.971 cts/pix/s</i>								
	<i>cvso58_lya2_etc.txt; stis,nuvmama,g230l,c2376,52x2,mjd#59305 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=167.3 s, spectral region: 2800.0 +- 15.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 2433.3 cts/s/segment brightest pixel: 0.494 cts/s/pix at 2790.4 A Calculation performed 2020-07-30T14:21:50, v0.9 cited ETC used Lya x 4 -- with brightest 1.971, global 2793</i>								
3	G230L/2376 WAVE WAVECAL	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A					[==>]	[1]
4	G430L/4300 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A					[==>]	[1]
5	G430L/4300 (3) CVSO-58 (STIS.sp.1460502)	STIS/CCD, ACCUM, 52X2	G430L 4300 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4			457.8 Secs (457.8 Secs) [==>(Split 1)] [==>(Split 2)]	[1]	
<i>Comments: baseline calculation STIS.sp.1460502, requires 228.9s, so double to 457.8s Using just the K star spectrum gives STIS.sp.1463454 for 226s, so all is good!</i>									
<i>cvso58_lya2_etc.txt; stis,ccd,g430l,c4300,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440 M*: 0.78 ; log(dm/dt): -8.35 For exptime=93.8 s, n_reads=2, spectral region: 4000.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 35983.6 cts/s/segment brightest pixel: 10.940 cts/s/pix at 4871.0 A Calculation performed 2020-07-30T14:21:50, v0.9 cited ETC used sed, with brightest, global rates as given above</i>									

Proposal 16114 - CVSO-58-STIS (3S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

6	G750L/7751 (3) CVSO-58 (STIS.sp.14 60501)	STIS/CCD, ACCUM, 52X2	G750L 7751 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4	51.2 Secs (51.2 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
<p><i>Comments: baseline calculation STIS.sp.1460501, requires 25.6s, so double to 51.2s</i></p> <p><i>cvso58_lya2_etc.txt; stis.ccd,g750l,c7751,52x2,mjd#59305</i> <i>WARNING: operating mode = ACCUM</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440</i> <i>M*: 0.78 ; log(dm/dt): -8.35</i> <i>For exptime=10.9 s, n_reads=2, spectral region:</i> <i>5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 54309.6 cts/s/segment</i> <i>brightest pixel: 73.144 cts/s/pix at 6563.9 A</i> <i>Calculation performed 2020-07-30T14:21:50, v0.9</i> <i>cited ETC used sed, with brightest, global rates as given above</i></p>						
7	G750L/7751 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		[==>]	[1]
8	G750L/7751 CCDFLAT CCDFLAT 1	STIS/CCD, ACCUM, 0.3X0.09	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
<p><i>Comments: cvso58_lya2_etc.txt; stis.ccd,g750l,c7751,52x2,mjd#59305</i> <i>WARNING: operating mode = ACCUM</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440</i> <i>M*: 0.78 ; log(dm/dt): -8.35</i> <i>For exptime=10.9 s, n_reads=2, spectral region:</i> <i>5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 54309.6 cts/s/segment</i> <i>brightest pixel: 73.144 cts/s/pix at 6563.9 A</i> <i>Calculation performed 2020-07-30T14:21:50, v0.9</i></p>						
9	G750L/7751 CCDFLAT CCDFLAT 2	STIS/CCD, ACCUM, 52X2	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
<p><i>Comments: cvso58_lya2_etc.txt; stis.ccd,g750l,c7751,52x2,mjd#59305</i> <i>WARNING: operating mode = ACCUM</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>Spectral type: K7 ; A_V: 0.12 ; Distance (pc): 440</i> <i>M*: 0.78 ; log(dm/dt): -8.35</i> <i>For exptime=10.9 s, n_reads=2, spectral region:</i> <i>5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel</i> <i>A factor of 2.0 has been applied to the exptime in each exposure.</i> <i>global countrate (brightest segment): 54309.6 cts/s/segment</i> <i>brightest pixel: 73.144 cts/s/pix at 6563.9 A</i> <i>Calculation performed 2020-07-30T14:21:50, v0.9</i></p>						



Proposal 16114 - CVSO-90-COS (4C) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

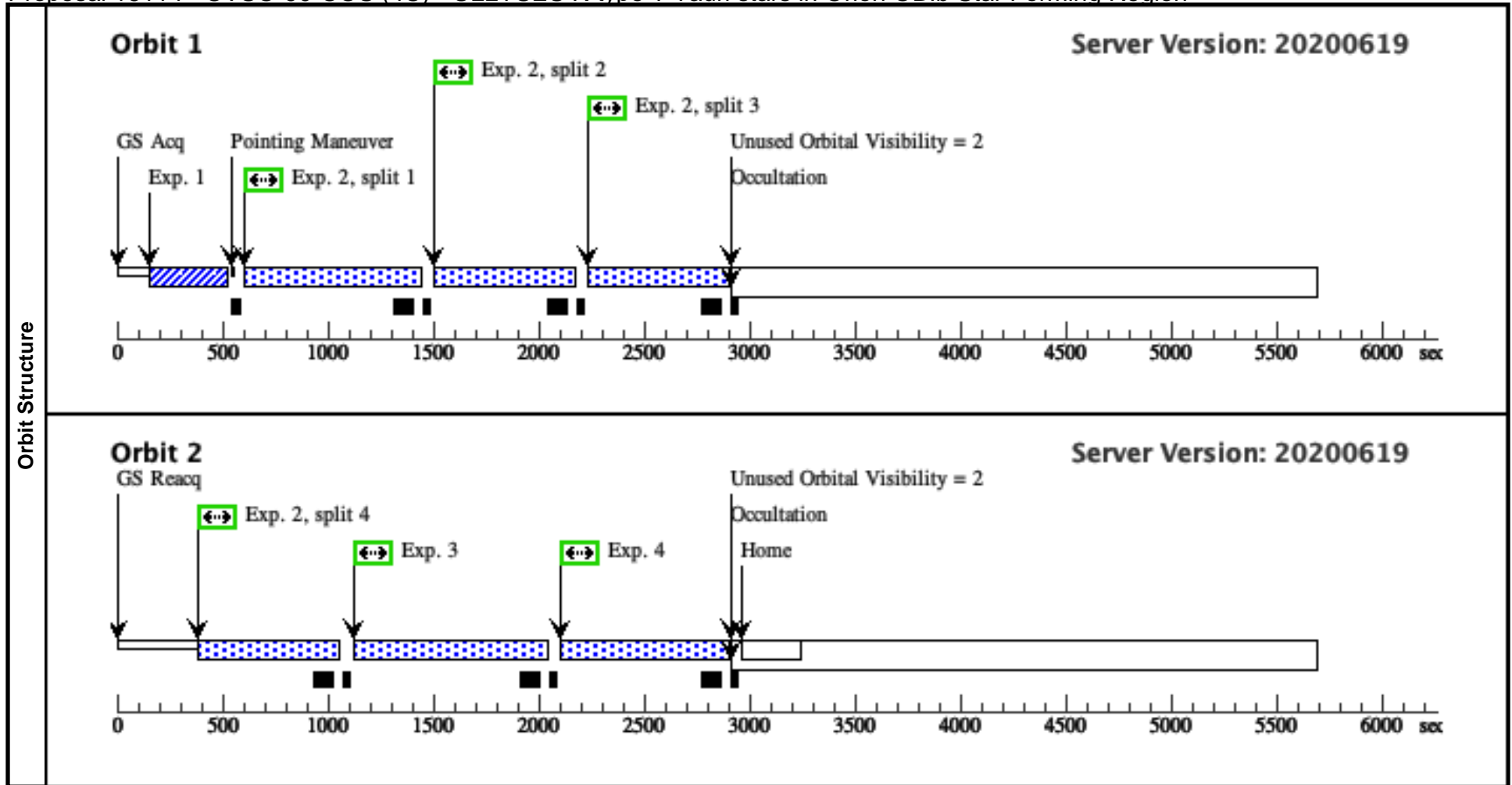
Tue Oct 27 18:01:16 GMT 2020

Proposal 16114, CVSO-90-COS (4C), implementation
Diagnostic Status: No Diagnostics
 Scientific Instruments: COS/FUV, COS/NUV
 Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:08:05:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:15:05:00
Comments: vstatus; 4C; CVSO-90; P/COS approved for submission; P/CP 02/09/20 ; internal review complete ; C/DS 16/09/20
vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-90 ; COS ; CP
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?; PSA, MIRRORB, S/N=40
vcheck; Possible ACQ or Sci spoilers?; None
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; OK
vcheck; Orbit packing finalized?; yes ...
obtained 151.5% of requested c1611 and 154.1% of c1291
vcheck; Buffer times optimized?; Yes
vcheck; Verify visit grouping correct; Group 4C,4S within 1 Day
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 = 2

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	CVSO-90 Alt Name1: J05312062-0049197 Alt Name2: KISO-A-0904-1	RA: 05 31 20.6308 (82.8359617d) Dec: -00 49 19.86 (-.82218d) Equinox: J2000	Proper Motion RA: 1.52321602 mas/yr Proper Motion Dec: -0.934642403 mas/yr Parallax: 0.0028373102080000005" Epoch of Position: 2015.5	V=14.61 SpT=K7; A_V=0.00; U=14.02; V=14.6; I=13.37, J=12.1	Reference Frame: ICRS
<p><i>Comments: CVSO-90 : J05312062-0049197</i> <i>Region: Ori OB1b</i> <i>Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05312062-0049197&submit=submit+id</i> <i>Target coordinates are from Gaia DR2.</i> <i>Spectral type: K7 ; A_V: 0.0 ; Distance (pc): 440</i> <i>M*: 0.79 ; log(dm/dt): -7.75</i> <i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i> <i>cvso90_lya2_etc.txt</i> <i>Calculation performed 2020-07-30T14:20:25, v0.4</i></p> <hr/> <p><i>tstatus; CVSO-90; P/COS approved for submission; S/STIS ready for internal review; P/CP 12/08/20; S/CP 12/08/20</i> <i>tcheck; APT/SIMBAD target names: ; Kiso A-0904 1 ; CVSO 90</i> <i>tcheck; Target info verification status?; Good</i> <i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> <i>Observed U about 2.6x baseline SED, while observed VI about 0.45x baseline, COS c1611 continuum about 0.5x, while observed peak 1550 emission about 0.2x observed.</i> Category=STAR Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR] Extended=NO</p>					

Proposal 16114 - CVSO-90-COS (4C) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	ACQ/Image (COS.ta.146 0512)	(4) CVSO-90	COS/NUV, ACQ/IMAGE, PSA	MIRRORB			39.5 Secs (39.5 Secs) [==>]	[1]
	<p>Comments: Baseline calc COS.ta.1460511 at S/N=40 requires 39.5 s with B.P. = 5.643 BOP calc COS.ta.1460512 has B.P. = 22.5 cts/pix/s</p>								
	2	G160M/161 1 (COS.sp.146 051)	(4) CVSO-90	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=50 7; FP-POS=ALL		617 Secs (2468 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)]	[1] [2]
	<p>Comments: 4x BOP ETC calc COS.sp.1460515, P.B.=0.109 cts/pix/s baseline S/N ETC calc COS.sp.1460517</p> <p>cvso90_lya2_etc.txt; cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7; A_V: 0.0; Distance (pc): 440 M*: 0.79; log(dm/dt): -7.75 For exptime=814.6 s, spectral region: 1549.0 +- 1.0 A achieves SNR=30.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 115.2 cts/s/segment brightest pixel: 0.027 cts/s/pix at 1548.4 A Calculation performed 2020-07-30T14:20:23, v0.9</p>								
3	G130M/129 1-3 (COS.sp.146 0519)	(4) CVSO-90	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=63 6; FP-POS=3		746 Secs (746 Secs) [==>]	[2]	
<p>Comments: 4X BOP ETC calc COS.sp.1460519, gives B.P. 0.432 Would have to scale to U=13.1 (COS.sp.1460521) to get close to local limit in Lyman alpha line (may need to consider ISM geocoronal absorbtion if brighter than this?) Baseline S/N ETC calc COS.sp.1460518</p> <p>cvso90_lya2_etc.txt; cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7; A_V: 0.0; Distance (pc): 440 M*: 0.79; log(dm/dt): -7.75 For exptime=484.1 s, spectral region: 1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 573.7 cts/s/segment brightest pixel: 0.108 cts/s/pix at 1214.2 A Calculation performed 2020-07-30T14:20:25, v0.9</p>									
4	G130M/129 1-4 (COS.sp.146 0519)	(4) CVSO-90	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=63 6; FP-POS=4		746 Secs (746 Secs) [==>]	[2]	
<p>Comments: cvso90_lya2_etc.txt; cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7; A_V: 0.0; Distance (pc): 440 M*: 0.79; log(dm/dt): -7.75 For exptime=484.1 s, spectral region: 1239.0 +- 1.0 A achieves SNR=15.0 / 6-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 573.7 cts/s/segment brightest pixel: 0.108 cts/s/pix at 1214.2 A Calculation performed 2020-07-30T14:20:25, v0.9</p>									



Proposal 16114 - CVSO-90-STIS (4S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

Tue Oct 27 18:01:16 GMT 2020

Visit	<p>Proposal 16114, CVSO-90-STIS (4S), implementation</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: STIS/NUV-MAMA, STIS/CCD</p> <p>Special Requirements: SCHED 100%; BETWEEN 19-NOV-2020:13:40:00 AND 02-DEC-2020:09:40:00; BETWEEN 03-DEC-2020:10:40:00 AND 16-DEC-2020:16:40:00; GROUP 4S,4C WITHIN 1D</p> <p><i>Comments: vstatus; 4S; CVSO-90; S/STIS approved for submission; P/CP 12/08/20 ; internal review complete ; S/DW 11/09/20</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; CVSO-90 ; STIS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; M-dwarf check complete and added to box folder?; N/A</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; Yes</i></p> <p><i>vcheck; Field images checked & saved?; yes, field completely clear except for target</i></p> <p><i>vcheck; Selected ACQ strategy?; F28X50LP with S/N=80 for baseline spectrum</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; None</i></p> <p><i>vcheck; Field BOT clear?; yes</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; OK</i></p> <p><i>vcheck; Orbit packing finalized?; Yes</i></p> <p><i>vcheck; Buffer times optimized?; Yes</i></p> <p><i>vcheck; Verify visit grouping correct; Seq 4S, 4C within 1 orbit</i></p> <p><i>vcheck; phase constraint for ground based observations added?; yes</i></p> <p><i>vcheck; BETWEENS for coordinated observations added?; Done</i></p> <p><i>vcheck; Is visit ready for int. review?; yes</i></p> <p><i>Allocated STIS orbits = 1</i></p>																																		
	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td>CVSO-90</td> <td>RA: 05 31 20.6308 (82.8359617d)</td> <td>Proper Motion RA: 1.52321602 mas/yr</td> <td>V=14.61</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: J05312062-0049197</td> <td>Dec: -00 49 19.86 (-.82218d)</td> <td>Proper Motion Dec: -0.934642403 mas/yr</td> <td>SpT=K7; A_V=0.00; U=14.02;</td> <td></td> </tr> <tr> <td></td> <td>Alt Name2: KISO-A-0904-1</td> <td>Equinox: J2000</td> <td>Parallax: 0.0028373102080000005"</td> <td>V=14.6; I=13.37,</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Epoch of Position: 2015.5</td> <td>J=12.1</td> <td></td> </tr> </tbody> </table> <p><i>Comments: CVSO-90 : J05312062-0049197</i></p> <p><i>Region: Ori OB1b</i></p> <p><i>Simbad: https://simbad.u-strasbg.fr/simbad/sim-id?Ident=2MASS+J05312062-0049197&submit=submit+id</i></p> <p><i>Target coordinates are from Gaia DR2.</i></p> <p><i>Spectral type: K7 ; A_V: 0.0 ; Distance (pc): 440</i></p> <p><i>M*: 0.79 ; log(dm/dt): -7.75</i></p> <p><i>Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv</i></p> <p><i>cvso90_lya2_etc.txt</i></p> <p><i>Calculation performed 2020-07-30T14:20:25, v0.4</i></p> <hr/> <p><i>tstatus: CVSO-90; P/COS approved for submission; S/STIS ready for internal review; P/CP 12/08/20; S/CP 12/08/20</i></p> <p><i>tcheck; APT/SIMBAD target names: ; Kiso A-0904 1 ; CVSO 90</i></p> <p><i>tcheck; Target info verification status?; Good</i></p> <p><i>tcheck; Coordinates & P.M. verified, epoch checked?; Yes</i></p> <p><i>tcheck; Adopted SED compared to Observations?; yes ...</i></p> <p><i>Observed U about 2.6x baseline SED, while observed VI about 0.45x baseline, COS c1611 continuum about 0.5x, while observed peak 1550 emission about 0.2x observed.</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[T TAURI STAR, PRE-MAIN SEQUENCE STAR]</i></p> <p><i>Extended=NO</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(4)	CVSO-90	RA: 05 31 20.6308 (82.8359617d)	Proper Motion RA: 1.52321602 mas/yr	V=14.61	Reference Frame: ICRS		Alt Name1: J05312062-0049197	Dec: -00 49 19.86 (-.82218d)	Proper Motion Dec: -0.934642403 mas/yr	SpT=K7; A_V=0.00; U=14.02;			Alt Name2: KISO-A-0904-1	Equinox: J2000	Parallax: 0.0028373102080000005"	V=14.6; I=13.37,					Epoch of Position: 2015.5	J=12.1
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																														
(4)	CVSO-90	RA: 05 31 20.6308 (82.8359617d)	Proper Motion RA: 1.52321602 mas/yr	V=14.61	Reference Frame: ICRS																														
	Alt Name1: J05312062-0049197	Dec: -00 49 19.86 (-.82218d)	Proper Motion Dec: -0.934642403 mas/yr	SpT=K7; A_V=0.00; U=14.02;																															
	Alt Name2: KISO-A-0904-1	Equinox: J2000	Parallax: 0.0028373102080000005"	V=14.6; I=13.37,																															
			Epoch of Position: 2015.5	J=12.1																															
Fixed Targets																																			

Proposal 16114 - CVSO-90-STIS (4S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	ACQ (4) CVSO-90 (STIS.ta.1460530)	STIS/CCD, ACQ, F28X50LP	MIRROR				0.4 Secs (0.4 Secs) [==>]	[1]	
	<i>Comments: STIS.ta.1460530 suggests 0.2s for S/N=80</i>									
	2	G230L/2376 (4) CVSO-90 (STIS.sp.1460529)	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	WAVECAL=NO; BUFFER-TIME=29 7			889 Secs (889 Secs) [==>]	[1]	
	<i>Comments: 4X BOP ETC calc Baseline S/N calc STIS.sp.1460528, B.P. = 7.4 cts/pix/s</i>									
	<i>cvso90_lya2_etc.txt; stis,nuvmama,g230l,c2376,52x2,mjd#59305 Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7; A_V: 0.0; Distance (pc): 440 M*: 0.79; log(dm/dt): -7.75 For exptime=43.7 s, spectral region: 2800.0 +- 15.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 2799.2 cts/s/segment brightest pixel: 1.860 cts/s/pix at 2788.8 A Calculation performed 2020-07-30T14:20:25, v0.9 cited ETC used Lya sed x 4 -- with brightest 7.432, global 4257</i>									
3	G230L/2376 WAVE WAVECAL	STIS/NUV-MAMA, ACCUM, 52X0.1	G230L 2376 A					[==>]	[1]	
4	G430L/4300 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A					[==>]	[1]	
5	G430L/4300 (4) CVSO-90 (STIS.sp.1463450)	STIS/CCD, ACCUM, 52X2	G430L 4300 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4			310 Secs (310 Secs) [==>(Split 1)] [==>(Split 2)]	[1]		
<i>Comments: Baseline ETC calc STIS.sp.1460527 requies 88.6s for S/N=20, so would normally request 177.2s However, if we instead normalize a K7 star to the observed V mag, we get STIS.sp.1463450, which requires 155.4s -> So let's adopt 310s.</i>										
<i>cvso90_lya2_etc.txt; stis,ccd,g430l,c4300,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7; A_V: 0.0; Distance (pc): 440 M*: 0.79; log(dm/dt): -7.75 For exptime=35.5 s, n_reads=2, spectral region: 4000.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 46743.9 cts/s/segment brightest pixel: 27.378 cts/s/pix at 4871.0 A Calculation performed 2020-07-30T14:20:25, v0.9 cited ETC used K7sed for CVSO-165 ?</i>										

Proposal 16114 - CVSO-90-STIS (4S) - ULLYSES K-type T Tauri stars in Orion OB1b Star Forming Region

6	G750L/7751 (4) CVSO-90 (STIS.sp.14 60526)	STIS/CCD, ACCUM, 52X2	G750L 7751 A	WAVECAL=NO; CR-SPLIT=2; GAIN=4	20.8 Secs (20.8 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
<p>Comments: Baseline ETC calc STIS.sp.1460526 requies 10.4s for S/N=20, so request 20.8s</p> <p>cvso90_lya2_etc.txt; stis.ccd,g750l,c7751,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.79 ; log(dm/dt): -7.75 For exptime=4.4 s, n_reads=2, spectral region: 5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 78694.2 cts/s/segment brightest pixel: 143.618 cts/s/pix at 6563.9 A Calculation performed 2020-07-30T14:20:25, v0.9</p>						
7	G750L/7751 WAVE WAVECAL	STIS/CCD, ACCUM, 52X0.1	G750L 7751 A		[==>]	[1]
8	G750L/7751 CCDFLAT CCDFLAT 1	STIS/CCD, ACCUM, 0.3X0.09	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
<p>Comments: cvso90_lya2_etc.txt; stis.ccd,g750l,c7751,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.79 ; log(dm/dt): -7.75 For exptime=4.4 s, n_reads=2, spectral region: 5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 78694.2 cts/s/segment brightest pixel: 143.618 cts/s/pix at 6563.9 A Calculation performed 2020-07-30T14:20:25, v0.9</p>						
9	G750L/7751 CCDFLAT CCDFLAT 2	STIS/CCD, ACCUM, 52X2	G750L 7751 A		[==>(Copy 1)] [==>(Copy 2)]	[1]
<p>Comments: cvso90_lya2_etc.txt; stis.ccd,g750l,c7751,52x2,mjd#59305 WARNING: operating mode = ACCUM Input file: combined_todo_survey_tess_sort_v2_Gaia_J_CP_edit.csv Spectral type: K7 ; A_V: 0.0 ; Distance (pc): 440 M*: 0.79 ; log(dm/dt): -7.75 For exptime=4.4 s, n_reads=2, spectral region: 5700.0 +- 5.0 A achieves SNR=20.0 / 2-pix-resel A factor of 2.0 has been applied to the exptime in each exposure. global countrate (brightest segment): 78694.2 cts/s/segment brightest pixel: 143.618 cts/s/pix at 6563.9 A Calculation performed 2020-07-30T14:20:25, v0.9</p>						

