



15955 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Cycle: 27, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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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>
01	(1) CD-46-644	COS/FUV COS/NUV	3	13-Feb-2020 16:00:37.0	yes
03	(3) BD+57-1274	COS/FUV COS/NUV	4	13-Feb-2020 16:00:39.0	yes
04	(4) HIP-107345	COS/FUV COS/NUV	3	13-Feb-2020 16:00:41.0	yes
05	(5) HD-266611	COS/FUV COS/NUV	4	13-Feb-2020 16:00:43.0	yes

Proposal 15955 (STScI Edit Number: 2, Created: Thursday, February 13, 2020 at 4:01:11 PM Eastern Standard Time) - Overview

<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>
07	(7) UCAC4-525-009613	COS/FUV COS/NUV	4	13-Feb-2020 16:00:44.0	yes
08	(8) V-CT-TUC	COS/FUV COS/NUV	3	13-Feb-2020 16:00:46.0	yes
09	(9) BD+05-2767	COS/FUV COS/NUV	7	13-Feb-2020 16:00:49.0	yes
10	(10) CD-35-1167	COS/FUV COS/NUV	4	13-Feb-2020 16:00:50.0	yes
11	(11) BD+16-502	COS/FUV COS/NUV	4	13-Feb-2020 16:00:52.0	yes
22	(22) BD+16-502-COPY	COS/FUV COS/NUV	4	13-Feb-2020 16:00:54.0	yes
12	(12) TYC-8083-45-5	COS/FUV COS/NUV	3	13-Feb-2020 16:00:55.0	yes
13	(13) CD-23-1056	COS/FUV COS/NUV	5	13-Feb-2020 16:00:57.0	yes
14	(14) UCAC4-518-008871	COS/FUV COS/NUV	4	13-Feb-2020 16:00:58.0	yes
15	(15) BD+49-2126	COS/FUV COS/NUV	5	13-Feb-2020 16:01:00.0	yes
16	(16) TYC-8098-414-1	COS/FUV COS/NUV	4	13-Feb-2020 16:01:01.0	yes
18	(18) STKM-1-495	COS/FUV COS/NUV	4	13-Feb-2020 16:01:04.0	yes
19	(19) V-V925-TAU	COS/FUV COS/NUV	4	13-Feb-2020 16:01:05.0	yes
20	(20) UCAC3-13-31217	COS/FUV COS/NUV	5	13-Feb-2020 16:01:07.0	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>
21	(21) BD+07-499	COS/FUV COS/NUV	3	13-Feb-2020 16:01:08.0	yes
52	(22) BD+16-502-COPY	COS/FUV COS/NUV	4	13-Feb-2020 16:01:10.0	yes

81 Total Orbits Used

ABSTRACT

Current efforts for finding a potentially habitable planet lie with M stars, yet K stars may offer more habitable conditions due to decreased stellar activity and more distant and wider habitable zones. Knowing the UV environment of a star over a planet's formation and evolution is critical in determining if that planet is potentially habitable and if any biosignatures will be detected, as UV radiation can severely change or destroy a planet's atmosphere. While M star stellar activity evolution has been observed photometrically and spectroscopically, there has been no spectroscopic study of K-star UV evolution. We propose to observe a statistical sample of K stars in the NUV and FUV with COS at three ages representative of UV evolution. By analyzing the full UV spectral range as a function of age, we will be able to provide an empirically-driven grid of model stellar spectra from X-ray to IR, which does not yet exist for K stars. This will include the extreme-UV flux, currently unobservable, which most affects the alteration and erosion of a planet's atmosphere. Both the proposed observations and the subsequent upper-atmosphere stellar models will be vital in determining the potential habitability of planets orbiting K stars.

OBSERVING DESCRIPTION

We have carefully selected 24 K stars (including 5 with archived spectra) with similar masses (0.6 Msol - 0.8 Msol) and varying ages to measure the evolution of these types of stars. For those stars without published masses, we made mass estimates based on the spectral type to effective temperature transformations of Pecauc & Mamajek (2013) and the evolutionary models of Baraffe et al. (2015).

We have drawn the new targets from three representative ages: [1] 7 bona-fide members of the Tucana-Horologium young moving group (45 Myr, Bell et al. 2015; Kraus et al. 2014); [2] 6 bona-fide members of the Hyades cluster (625 Myr, Perryman et al. 1997; Goldman et al. 2013); and [3] 6 K dwarf field stars within 25 pc, assumed at an age of 5 Gyr. In addition to our new sample, there are three K star members of Tuc-Hor and two field stars that have already been observed in the required modes, for a total of 24 K stars for this evolutionary statistical study. The intermediate age is vital to our understanding of UV evolution, as they provide the shape of the

evolutionary curve and would lead to an underestimate of intermediate-activity fluxes for stars of this age if ignored. A similar strategy has proven successful in the spectroscopic evolutionary study of M dwarfs with HST's HAZMAT program (GO-14784, P.I. Shkolnik; Loyd et al. 2018a).

We verified this sample to be single stars and only selected Tuc-Hor members that were confirmed with the addition of youth indicators such as low gravity indices, H α emission, and lithium absorption (necessary due to the large spacial dispersion of the group members in the sky) to provide further evidence of true membership. By the age of the Hyades members, these youth indicators are gone and the stars are clustered, therefore, we did not require this step in selecting our targets. The ages of each of our targets are thus well-constrained.

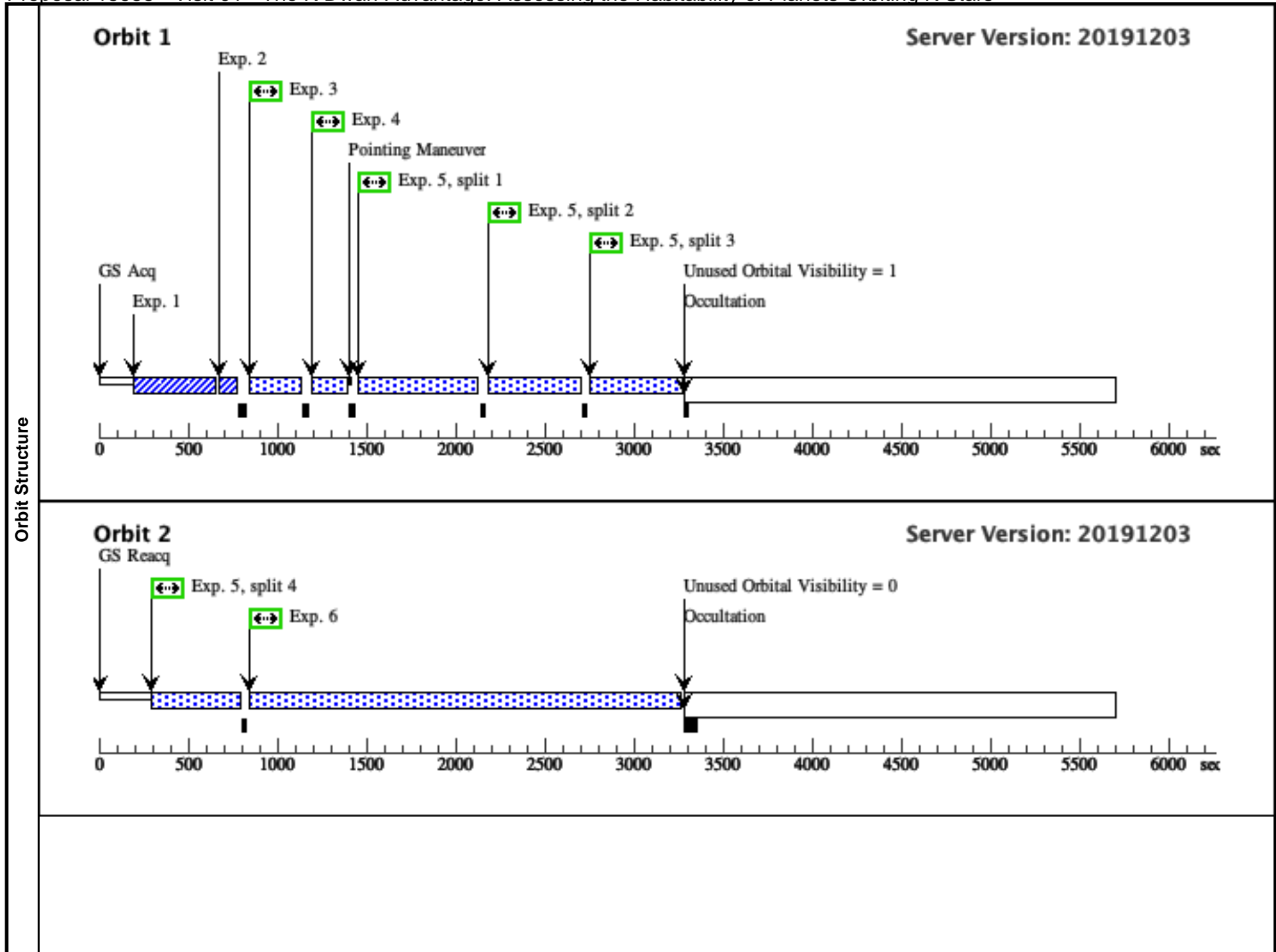
HST observations are fundamental for this analysis as HST provides the only access to UV spectra at the needed spectral resolution. The FUV and NUV emission lines are necessary for building the DEM for estimating the EUV and for completing upper atmosphere models that currently lack information about the chromosphere, transition region, and corona.

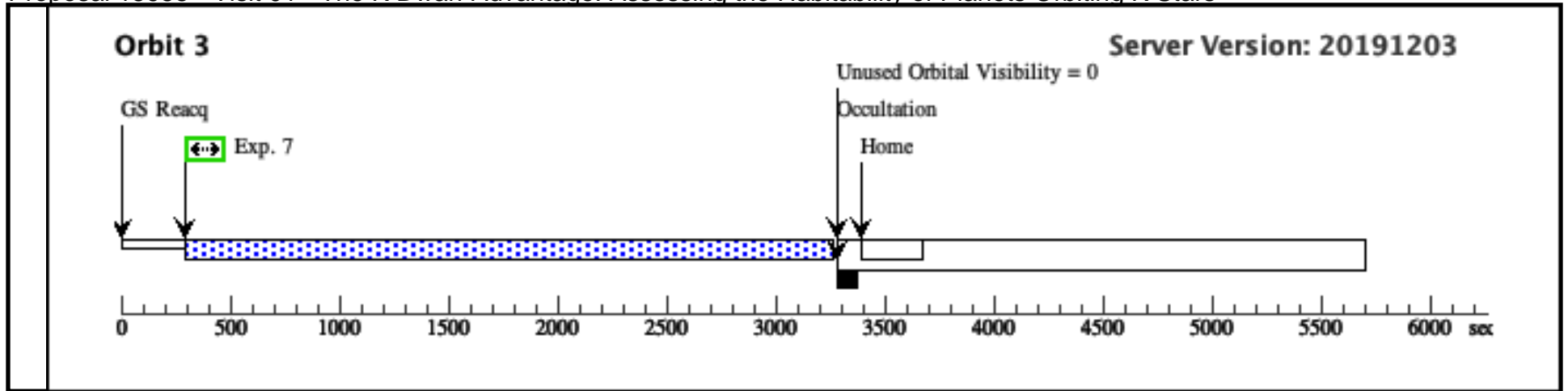
We calculated the exposure times using the COS/ETC and spectra from the K dwarfs observed by the MUSCLES program (France et al. 2016; Cycle 22, GO-13650, PI: France) scaled to the GALEX NUV and FUV magnitudes. We require an integrated S/N of 20 in the strong emission lines with formation temperatures ranging from 1E4 to 1E7 K to trace the evolution of stellar activity in the chromosphere, transition region, and corona. The Acquisition Image exposure times for each of the targets is between 1 second and 2 minutes. We require measurements of the slope of the NUV spectrum and the emission lines in the FUV to reconstruct the DEM for the EUV; therefore, we need exposures using COS G230L (2950 Å), COS G160M (1577 Å), and COS G130M (1309 Å). High-level science products will be contributed to MAST.

Proposal 15955 - Visit 01 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:11 GMT 2020

Visit	Proposal 15955, Visit 01, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(1)	CD-46-644	RA: 02 10 55.3913 (32.7307971d) Dec: -46 03 58.66 (-46.06629d) Equinox: J2000	Proper Motion RA: 56.249 mas/yr Proper Motion Dec: -26.663 mas/yr Parallax: 0.0122275" Epoch of Position: 2000	V=11.14	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392368)	(1) CD-46-644	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			29.1 Secs (29.1 Secs) [==>]	[1]
	2	(1392343)	(1) CD-46-644	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				3.9 Secs (3.9 Secs) [==>]	[1]
	3	(1371186)	(1) CD-46-644	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=13 66; FLASH=YES; FP-POS=2			108 Secs (182 Secs) [==>182.0 Secs]	[1]
	4	(1371186)	(1) CD-46-644	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=13 66; FLASH=YES; FP-POS=3			108 Secs (182 Secs) [==>182.0 Secs]	[1]
	5	(1371756)	(1) CD-46-644	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			391 Secs (1838 Secs) [==>465.0 Secs (Split 1)] [==>465.0 Secs (Split 2)] [==>465.0 Secs (Split 3)] [==>443.0 Secs (Split 4)]	[1] [2]
	6	(1371908)	(1) CD-46-644	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 59; FLASH=YES; FP-POS=3			2202 Secs (2254 Secs) [==>2254.0 Secs]	[2]
	7	(1371908)	(1) CD-46-644	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 59; FLASH=YES; FP-POS=4			2202 Secs (2919 Secs) [==>2919.0 Secs]	[3]

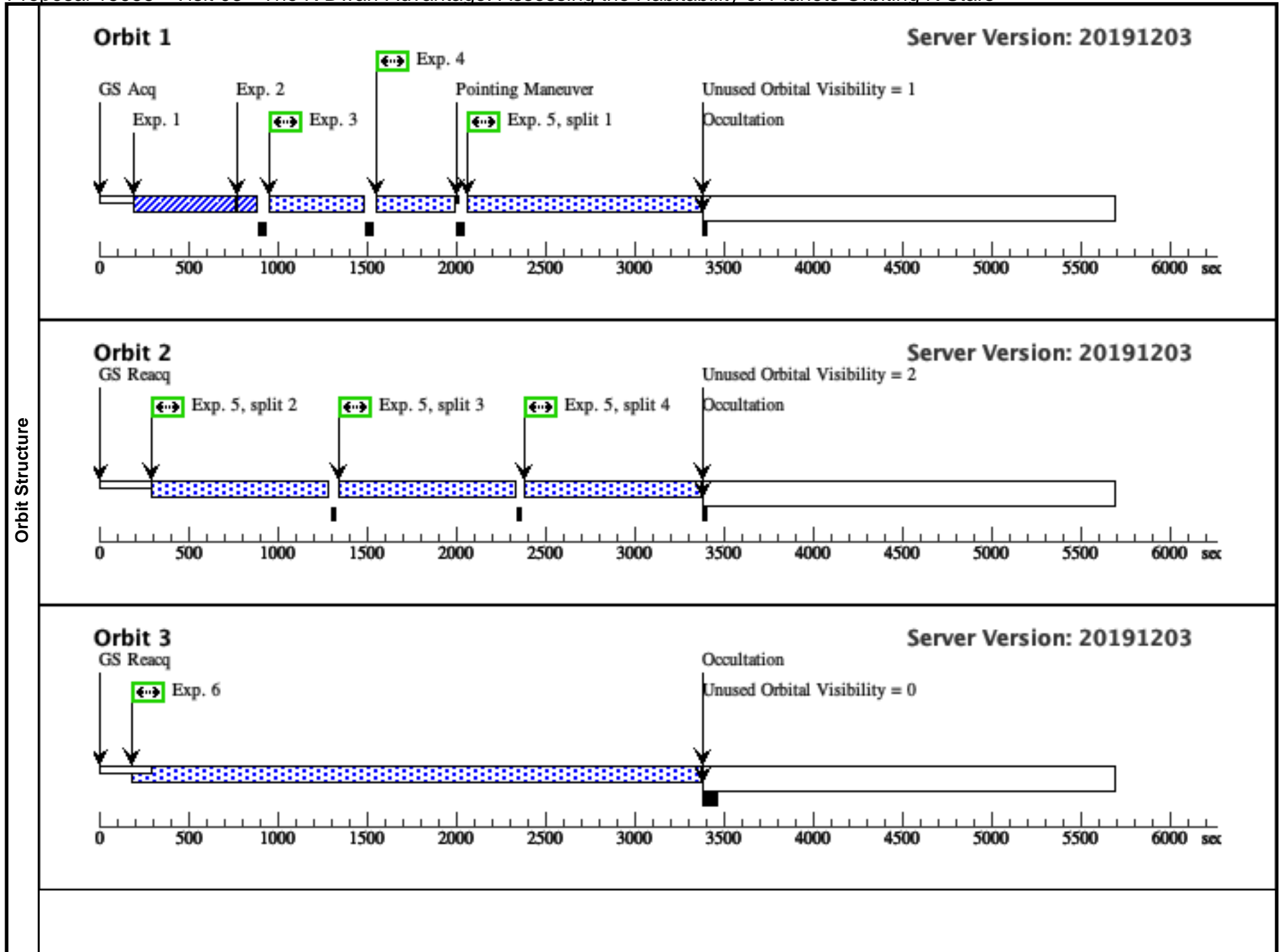


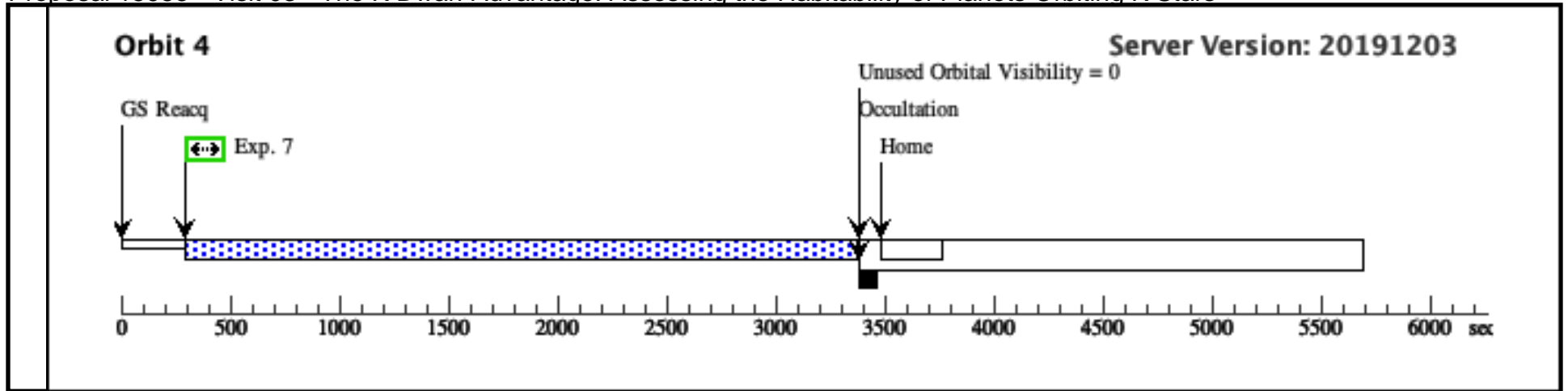


Proposal 15955 - Visit 03 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:11 GMT 2020

Visit	Proposal 15955, Visit 03, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(3)	BD+57-1274	RA: 10 31 43.2244 (157.9301017d) Dec: +57 06 57.11 (57.11586d) Equinox: J2000	Proper Motion RA: -67.262 mas/yr Proper Motion Dec: 172.634 mas/yr Parallax: 0.0569607" Epoch of Position: 2000	V=9.674	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392381)	(3) BD+57-1274	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			55.7 Secs (55.7 Secs) [==>]	[1]
	2	(1392344)	(3) BD+57-1274	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				5.9 Secs (5.9 Secs) [==>]	[1]
	3	(1371360)	(3) BD+57-1274	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=14 69; FLASH=YES; FP-POS=2			165 Secs (423 Secs) [==>423.0 Secs]	[1]
	4	(1371360)	(3) BD+57-1274	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=14 69; FLASH=YES; FP-POS=3			165 Secs (423 Secs) [==>423.0 Secs]	[1]
	5	(1371757)	(3) BD+57-1274	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			841 Secs (3910 Secs) [==>1099.0 Secs (Split 1)] [==>937.0 Secs (Split 2)] [==>937.0 Secs (Split 3)] [==>937.0 Secs (Split 4)]	[1] [2]
	6	(1371909)	(3) BD+57-1274	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=42 53; FLASH=YES; FP-POS=3			2407 Secs (3021 Secs) [==>3021.0 Secs]	[3]
	7	(1371909)	(3) BD+57-1274	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=42 53; FLASH=YES; FP-POS=4			2407 Secs (3023 Secs) [==>3023.0 Secs]	[4]

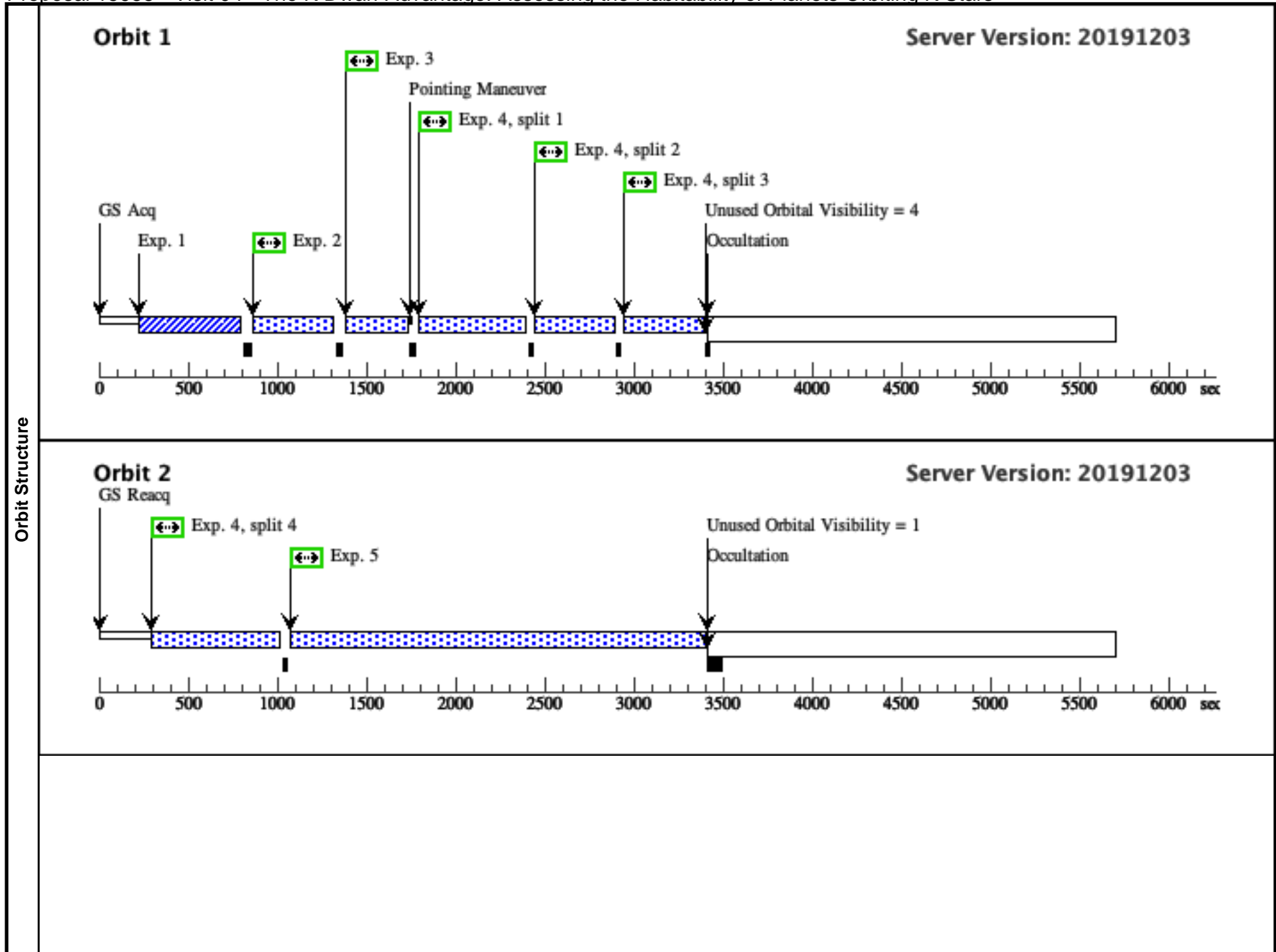


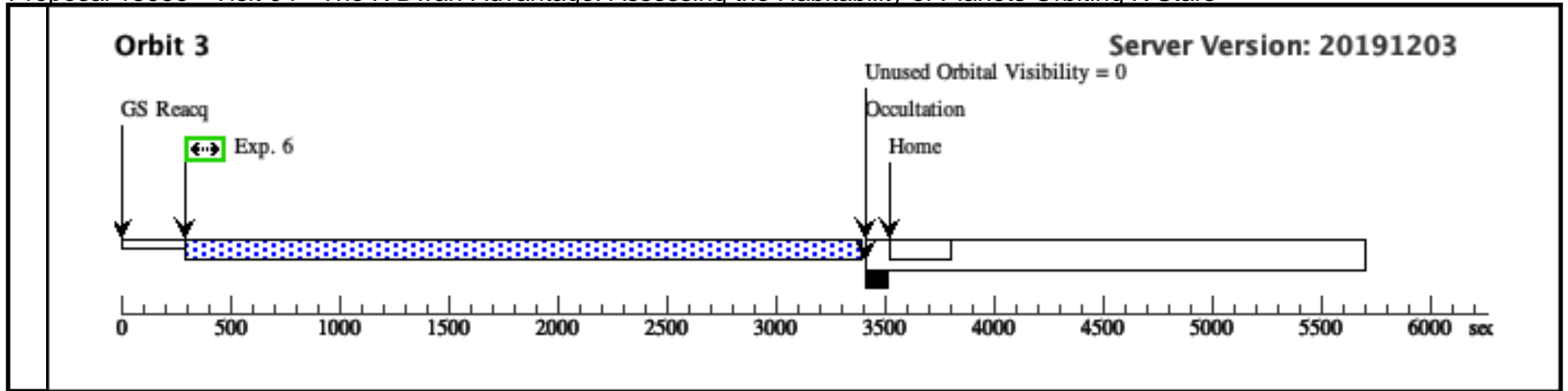


Proposal 15955 - Visit 04 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:11 GMT 2020

Visit	Proposal 15955, Visit 04, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(4)	HIP-107345	RA: 21 44 30.1228 (326.1255117d) Dec: -60 58 38.89 (-60.97747d) Equinox: J2000	Proper Motion RA: 41.468 mas/yr Proper Motion Dec: -93.517 mas/yr Parallax: 0.0215689" Epoch of Position: 2000	V=11.628	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1397516)	(4) HIP-107345	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				173 Secs (173 Secs) [==>]	[1]
	2	(1371429)	(4) HIP-107345	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 43; FLASH=YES; FP-POS=2			260 Secs (331 Secs) [==>331.0 Secs]	[1]
	3	(1371429)	(4) HIP-107345	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 43; FLASH=YES; FP-POS=3			260 Secs (331 Secs) [==>331.0 Secs]	[1]
	4	(1371758)	(4) HIP-107345	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			322 Secs (1845 Secs) [==>393.0 Secs (Split 1)] [==>393.0 Secs (Split 2)] [==>393.0 Secs (Split 3)] [==>666.0 Secs (Split 4)]	[1] [2]
	5	(1371910)	(4) HIP-107345	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=32 21; FLASH=YES; FP-POS=3			1812 Secs (2156 Secs) [==>2156.0 Secs]	[2]
	6	(1371910)	(4) HIP-107345	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=32 21; FLASH=YES; FP-POS=4			1812 Secs (3045 Secs) [==>3045.0 Secs]	[3]

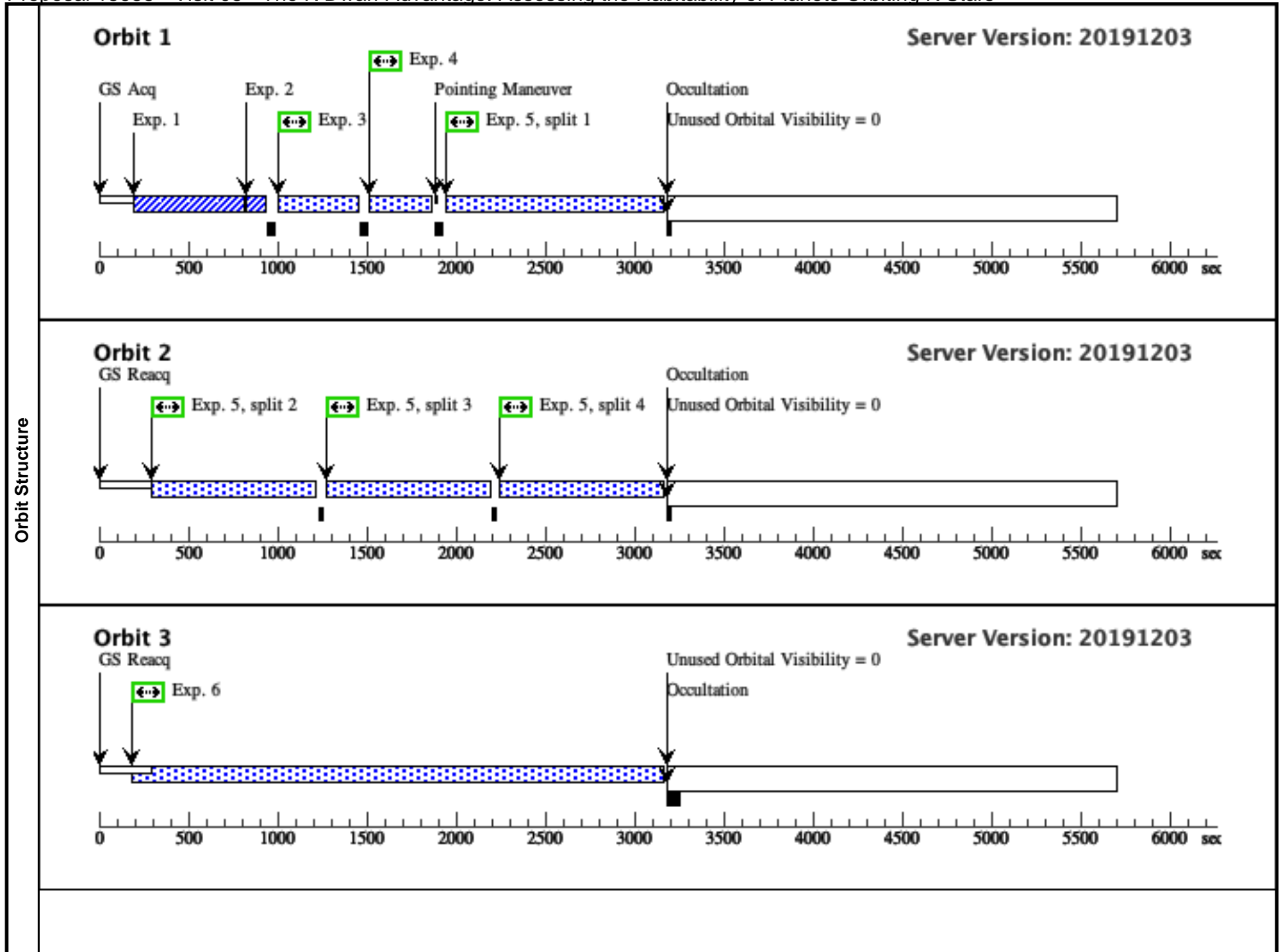


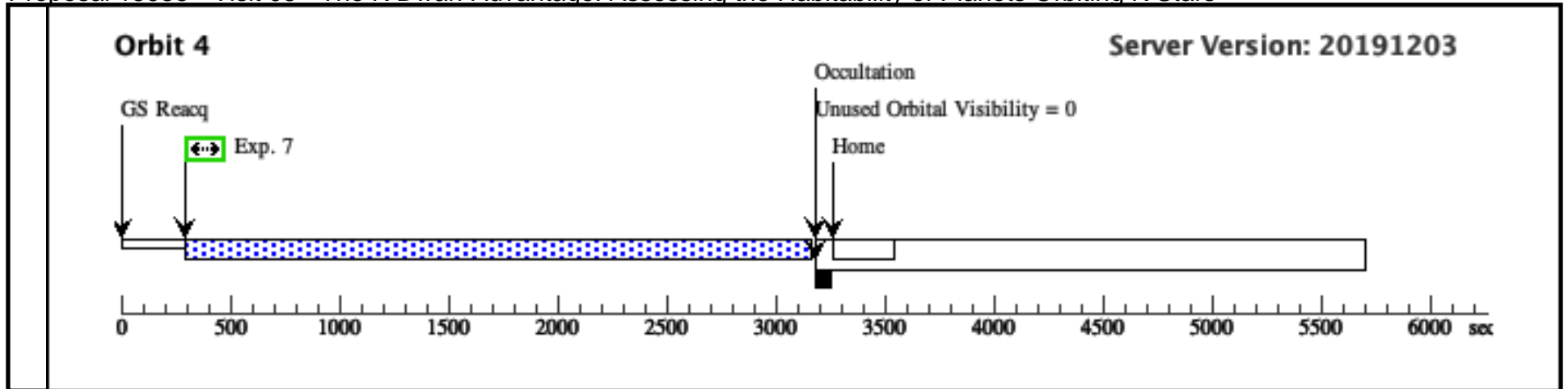


Proposal 15955 - Visit 05 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:11 GMT 2020

Visit	Proposal 15955, Visit 05, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(5)	HD-266611	RA: 06 57 4.6925 (104.2695521d) Dec: +30 45 23.37 (30.75649d) Equinox: J2000	Proper Motion RA: 89.528 mas/yr Proper Motion Dec: -221.660 mas/yr Parallax: 0.0529498" Epoch of Position: 2000	V=9.745	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392383)	(5) HD-266611	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			67.7 Secs (67.7 Secs) [==>]	[1]
	2	(1392347)	(5) HD-266611	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				6.7 Secs (6.7 Secs) [==>]	[1]
	3	(1371430)	(5) HD-266611	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=14 93; FLASH=YES; FP-POS=2			186 Secs (337 Secs) [==>337.0 Secs]	[1]
	4	(1371430)	(5) HD-266611	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=14 93; FLASH=YES; FP-POS=3			186 Secs (337 Secs) [==>337.0 Secs]	[1]
	5	(1371759)	(5) HD-266611	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			862 Secs (3617 Secs) [==>1013.0 Secs (Split 1)] [==>868.0 Secs (Split 2)] [==>868.0 Secs (Split 3)] [==>868.0 Secs (Split 4)]	[1] [2]
	6	(1371911)	(5) HD-266611	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=42 73; FLASH=YES; FP-POS=3			2466 Secs (2812 Secs) [==>2812.0 Secs]	[3]
	7	(1371911)	(5) HD-266611	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=42 73; FLASH=YES; FP-POS=4			2466 Secs (2814 Secs) [==>2814.0 Secs]	[4]

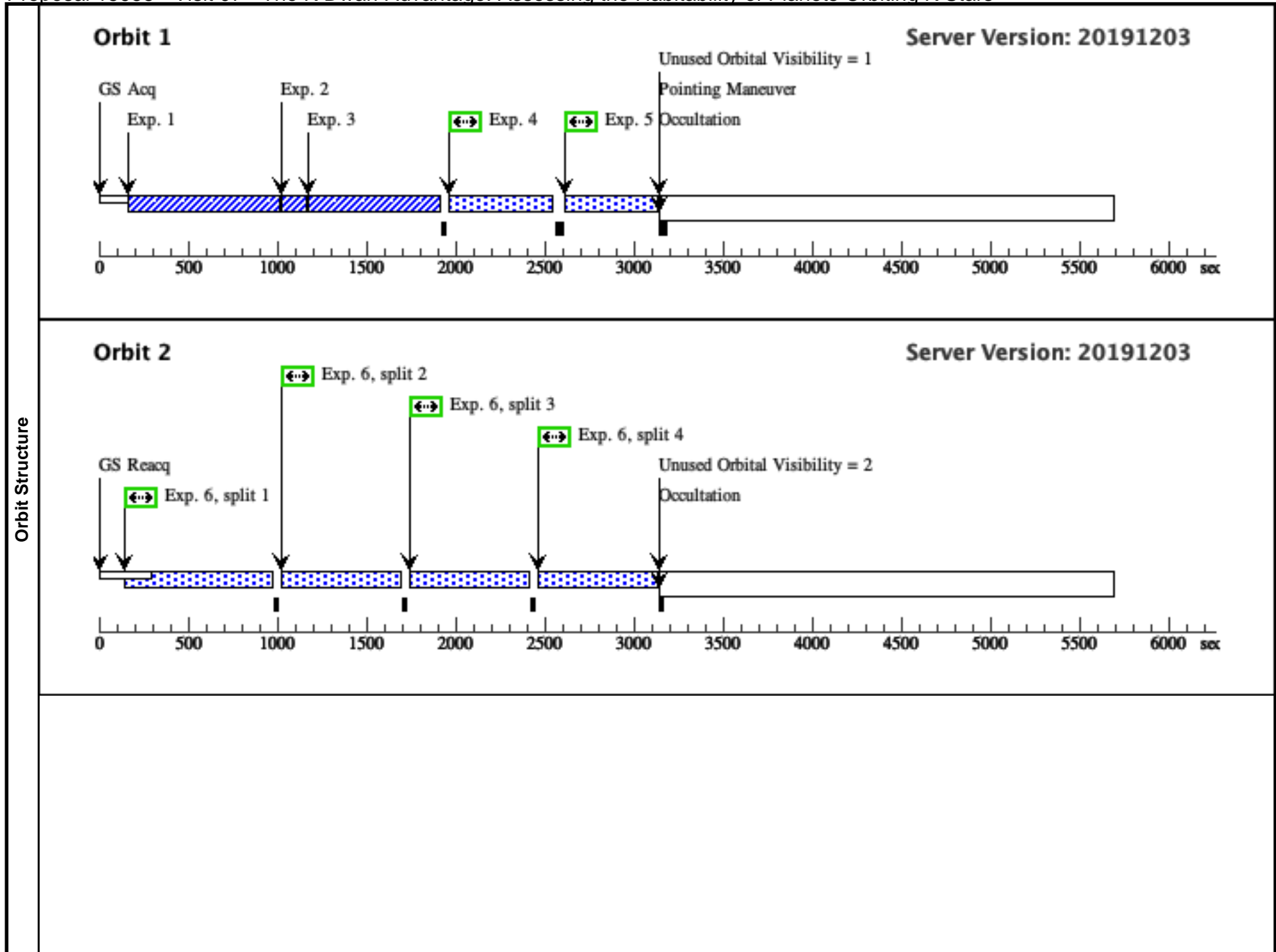


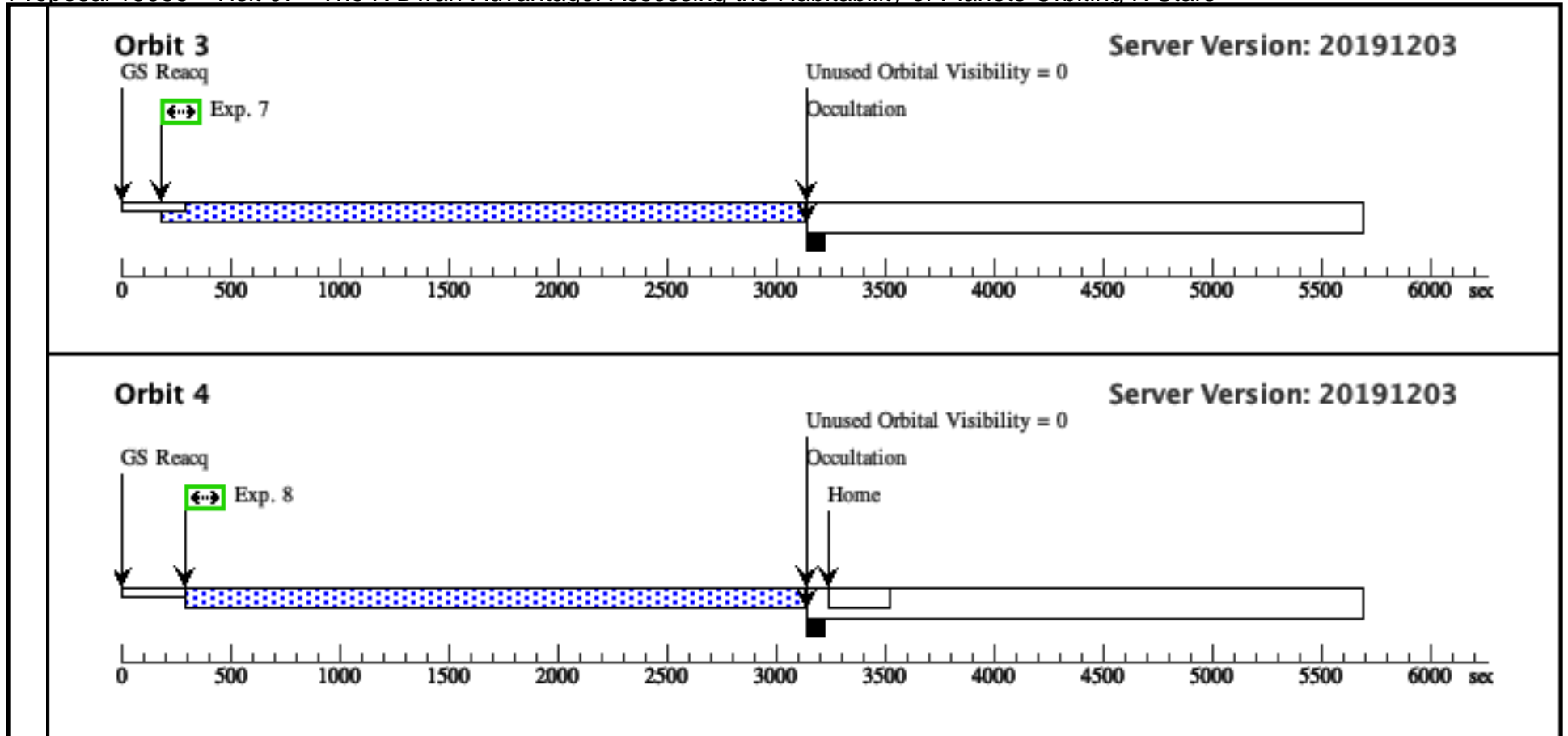


Proposal 15955 - Visit 07 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:11 GMT 2020

Visit	<p>Proposal 15955, Visit 07, scheduled</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: (none)</p>																																																																																																			
Fixed Targets	<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>(7)</td> <td>UCAC4-525-009613</td> <td>RA: 04 51 2.4235 (72.7600979d) Dec: +14 58 16.68 (14.97130d) Equinox: J2000</td> <td>Proper Motion RA: 96.514 mas/yr Proper Motion Dec: -23.867 mas/yr Parallax: 0.0245131" Epoch of Position: 2000</td> <td>V=11.676</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p>Category=STAR Description=[K V-IV] Extended=NO</p>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(7)	UCAC4-525-009613	RA: 04 51 2.4235 (72.7600979d) Dec: +14 58 16.68 (14.97130d) Equinox: J2000	Proper Motion RA: 96.514 mas/yr Proper Motion Dec: -23.867 mas/yr Parallax: 0.0245131" Epoch of Position: 2000	V=11.676	Reference Frame: ICRS																																																																														
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																																																																																															
(7)	UCAC4-525-009613	RA: 04 51 2.4235 (72.7600979d) Dec: +14 58 16.68 (14.97130d) Equinox: J2000	Proper Motion RA: 96.514 mas/yr Proper Motion Dec: -23.867 mas/yr Parallax: 0.0245131" Epoch of Position: 2000	V=11.676	Reference Frame: ICRS																																																																																															
Exposures	<table border="1"> <thead> <tr> <th>#</th> <th>Label (ETC Run)</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1397937)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/NUV, ACQ/SEARCH, PSA</td> <td>G230L 2950 A</td> <td>CENTER=FLUX-W T; SCAN-SIZE=2; STEP-SIZE=1.767</td> <td></td> <td></td> <td>118 Secs (118 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>(1397939)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/NUV, ACQ/PEAKXD, PSA</td> <td>G230L 2950 A</td> <td>STRIPE=MEDIUM</td> <td></td> <td></td> <td>76 Secs (76 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>(1397937)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/NUV, ACQ/PEAKD, PSA</td> <td>G230L 2950 A</td> <td>CENTER=FLUX-W T-FLR; STEP-SIZE=0.9; NUM-POS=5</td> <td></td> <td></td> <td>118 Secs (118 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>(1371428)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/NUV, TIME-TAG, PSA</td> <td>G230L 2950 A</td> <td>BUFFER-TIME=16 19; FLASH=YES; FP-POS=2</td> <td></td> <td></td> <td>488 Secs (500 Secs) [==>500.0 Secs]</td> <td>[1]</td> </tr> <tr> <td>5</td> <td>(1371428)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/NUV, TIME-TAG, PSA</td> <td>G230L 2950 A</td> <td>BUFFER-TIME=16 19; FLASH=YES; FP-POS=3</td> <td></td> <td></td> <td>488 Secs (500 Secs) [==>500.0 Secs]</td> <td>[1]</td> </tr> <tr> <td>6</td> <td>(1371760)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G160M 1577 A</td> <td>BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL</td> <td></td> <td></td> <td>476 Secs (2464 Secs) [==>616.0 Secs (Split 1)] [==>616.0 Secs (Split 2)] [==>616.0 Secs (Split 3)] [==>616.0 Secs (Split 4)]</td> <td>[2]</td> </tr> <tr> <td>7</td> <td>(1371912)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>BUFFER-TIME=36 89; FLASH=YES; FP-POS=3</td> <td></td> <td></td> <td>2691 Secs (2781 Secs) [==>2781.0 Secs]</td> <td>[3]</td> </tr> <tr> <td>8</td> <td>(1371912)</td> <td>(7) UCAC4-525-009 613</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>BUFFER-TIME=36 89; FLASH=YES; FP-POS=4</td> <td></td> <td></td> <td>2691 Secs (2783 Secs) [==>2783.0 Secs]</td> <td>[4]</td> </tr> </tbody> </table>										#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1	(1397937)	(7) UCAC4-525-009 613	COS/NUV, ACQ/SEARCH, PSA	G230L 2950 A	CENTER=FLUX-W T; SCAN-SIZE=2; STEP-SIZE=1.767			118 Secs (118 Secs) [==>]	[1]	2	(1397939)	(7) UCAC4-525-009 613	COS/NUV, ACQ/PEAKXD, PSA	G230L 2950 A	STRIPE=MEDIUM			76 Secs (76 Secs) [==>]	[1]	3	(1397937)	(7) UCAC4-525-009 613	COS/NUV, ACQ/PEAKD, PSA	G230L 2950 A	CENTER=FLUX-W T-FLR; STEP-SIZE=0.9; NUM-POS=5			118 Secs (118 Secs) [==>]	[1]	4	(1371428)	(7) UCAC4-525-009 613	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 19; FLASH=YES; FP-POS=2			488 Secs (500 Secs) [==>500.0 Secs]	[1]	5	(1371428)	(7) UCAC4-525-009 613	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 19; FLASH=YES; FP-POS=3			488 Secs (500 Secs) [==>500.0 Secs]	[1]	6	(1371760)	(7) UCAC4-525-009 613	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			476 Secs (2464 Secs) [==>616.0 Secs (Split 1)] [==>616.0 Secs (Split 2)] [==>616.0 Secs (Split 3)] [==>616.0 Secs (Split 4)]	[2]	7	(1371912)	(7) UCAC4-525-009 613	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=36 89; FLASH=YES; FP-POS=3			2691 Secs (2781 Secs) [==>2781.0 Secs]	[3]	8	(1371912)	(7) UCAC4-525-009 613	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=36 89; FLASH=YES; FP-POS=4			2691 Secs (2783 Secs) [==>2783.0 Secs]	[4]
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																																																											
1	(1397937)	(7) UCAC4-525-009 613	COS/NUV, ACQ/SEARCH, PSA	G230L 2950 A	CENTER=FLUX-W T; SCAN-SIZE=2; STEP-SIZE=1.767			118 Secs (118 Secs) [==>]	[1]																																																																																											
2	(1397939)	(7) UCAC4-525-009 613	COS/NUV, ACQ/PEAKXD, PSA	G230L 2950 A	STRIPE=MEDIUM			76 Secs (76 Secs) [==>]	[1]																																																																																											
3	(1397937)	(7) UCAC4-525-009 613	COS/NUV, ACQ/PEAKD, PSA	G230L 2950 A	CENTER=FLUX-W T-FLR; STEP-SIZE=0.9; NUM-POS=5			118 Secs (118 Secs) [==>]	[1]																																																																																											
4	(1371428)	(7) UCAC4-525-009 613	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 19; FLASH=YES; FP-POS=2			488 Secs (500 Secs) [==>500.0 Secs]	[1]																																																																																											
5	(1371428)	(7) UCAC4-525-009 613	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 19; FLASH=YES; FP-POS=3			488 Secs (500 Secs) [==>500.0 Secs]	[1]																																																																																											
6	(1371760)	(7) UCAC4-525-009 613	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			476 Secs (2464 Secs) [==>616.0 Secs (Split 1)] [==>616.0 Secs (Split 2)] [==>616.0 Secs (Split 3)] [==>616.0 Secs (Split 4)]	[2]																																																																																											
7	(1371912)	(7) UCAC4-525-009 613	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=36 89; FLASH=YES; FP-POS=3			2691 Secs (2781 Secs) [==>2781.0 Secs]	[3]																																																																																											
8	(1371912)	(7) UCAC4-525-009 613	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=36 89; FLASH=YES; FP-POS=4			2691 Secs (2783 Secs) [==>2783.0 Secs]	[4]																																																																																											

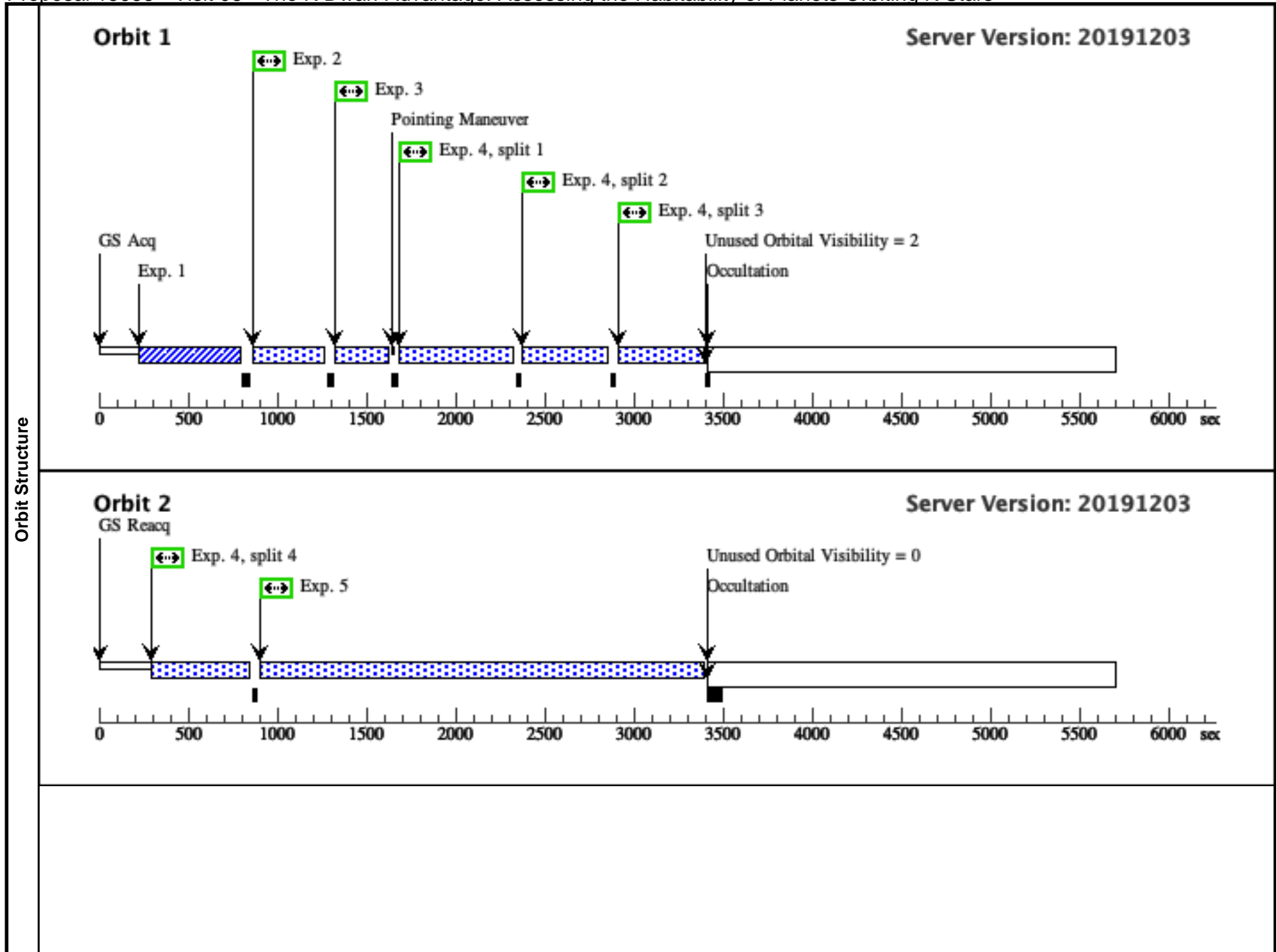


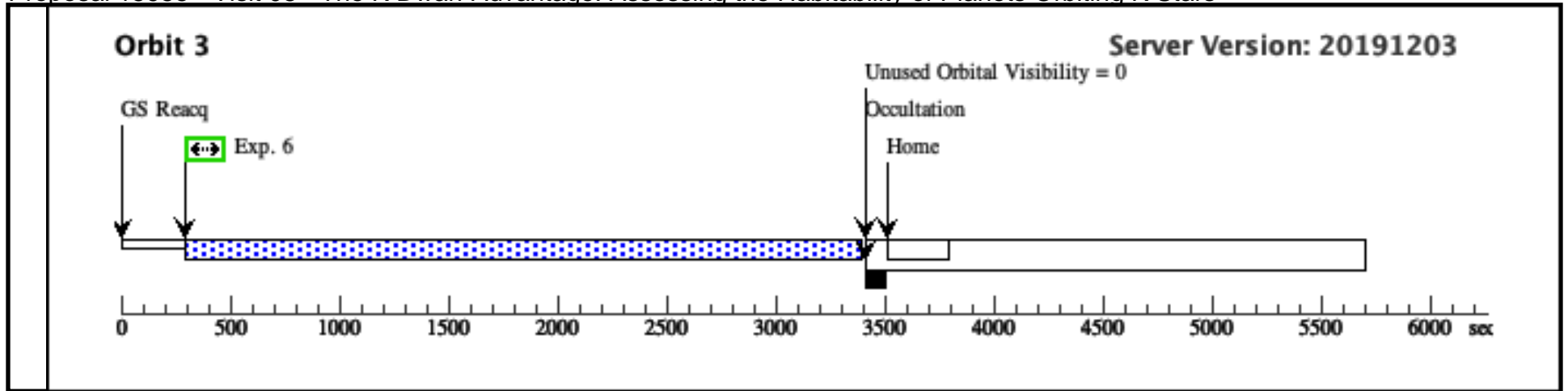


Proposal 15955 - Visit 08 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:11 GMT 2020

Visit	Proposal 15955, Visit 08, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(8)	V-CT-TUC	RA: 00 25 14.6620 (6.3110917d) Dec: -61 30 48.25 (-61.51340d) Equinox: J2000	Proper Motion RA: 87.925 mas/yr Proper Motion Dec: -56.166 mas/yr Parallax: 0.0226431" Epoch of Position: 2000	V=11.34	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1397518)	(8) V-CT-TUC	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				170 Secs (170 Secs) [==>]	[1]
	2	(1371431)	(8) V-CT-TUC	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 40; FLASH=YES; FP-POS=2			246 Secs (281 Secs) [==>281.0 Secs]	[1]
	3	(1371431)	(8) V-CT-TUC	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 40; FLASH=YES; FP-POS=3			246 Secs (281 Secs) [==>281.0 Secs]	[1]
	4	(1371761)	(8) V-CT-TUC	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			394 Secs (1786 Secs) [==>429.0 Secs (Split 1)] [==>429.0 Secs (Split 2)] [==>429.0 Secs (Split 3)] [==>499.0 Secs (Split 4)]	[1] [2]
	5	(1371913)	(8) V-CT-TUC	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 67; FLASH=YES; FP-POS=3			2219 Secs (2324 Secs) [==>2324.0 Secs]	[2]
	6	(1371913)	(8) V-CT-TUC	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 67; FLASH=YES; FP-POS=4			2219 Secs (3045 Secs) [==>3045.0 Secs]	[3]



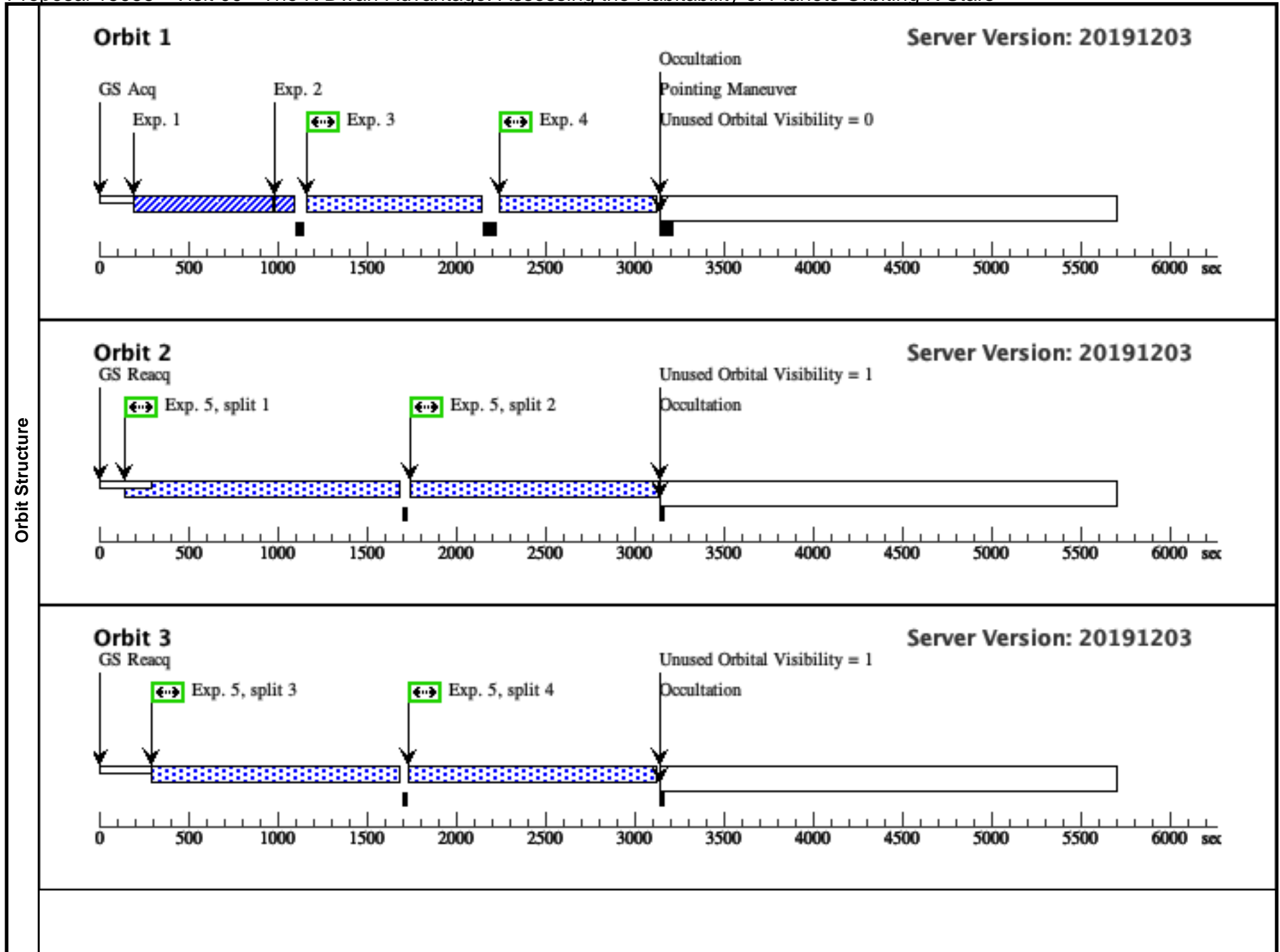


Proposal 15955 - Visit 09 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Visit	Proposal 15955, Visit 09, scheduling Thu Feb 13 21:01:11 GMT 2020 Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)					
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
(9)		BD+05-2767	RA: 13 34 21.5022 (203.5895925d) Dec: +04 40 2.64 (4.66740d) Equinox: J2000	Proper Motion RA: 153.623 mas/yr Proper Motion Dec: -123.253 mas/yr Parallax: 0.0489265" Epoch of Position: 2000	V=9.927	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=STAR Description=[K V-IV] Extended=NO						

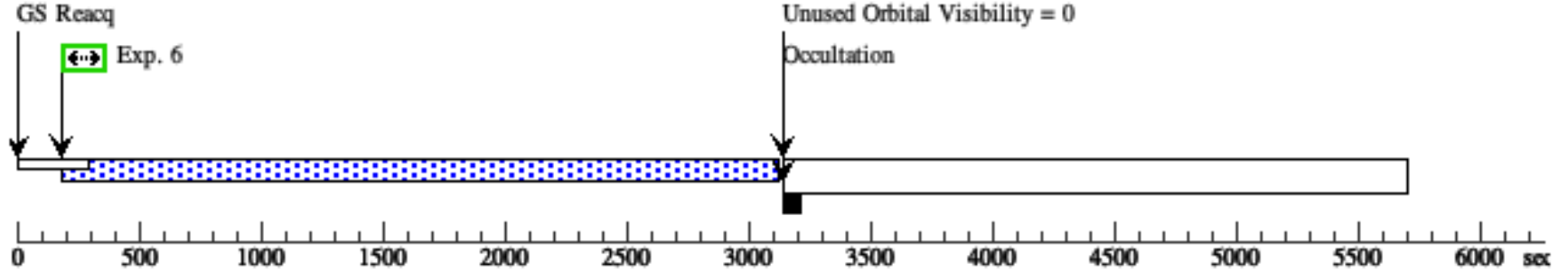
Proposal 15955 - Visit 09 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392387)	(9) BD+05-2767	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			107.3 Secs (107.3 Secs) [==>]	[1]
	2	(1392350)	(9) BD+05-2767	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				8.9 Secs (8.9 Secs) [==>]	[1]
	3	(1371432)	(9) BD+05-2767	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 41; FLASH=YES; FP-POS=2			247 Secs (869 Secs) [==>869.0 Secs]	[1]
	4	(1371432)	(9) BD+05-2767	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 41; FLASH=YES; FP-POS=3			247 Secs (869 Secs) [==>869.0 Secs]	[1]
	5	(1371762)	(9) BD+05-2767	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			1089 Secs (5338 Secs) [==>1334.0 Secs (Split 1)] [==>1334.0 Secs (Split 2)] [==>1335.0 Secs (Split 3)] [==>1335.0 Secs (Split 4)]	[2] [3]
	6	(1371914)	(9) BD+05-2767	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=44 55; FLASH=YES; FP-POS=3			1569 Secs (2774 Secs) [==>2774.0 Secs]	[4]
	7	(1371914)	(9) BD+05-2767	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=44 55; FLASH=YES; FP-POS=3			1569 Secs (2776 Secs) [==>2776.0 Secs]	[5]
	8	(1371914)	(9) BD+05-2767	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=44 55; FLASH=YES; FP-POS=4			1569 Secs (2776 Secs) [==>2776.0 Secs]	[6]
	9	(1371914)	(9) BD+05-2767	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=44 55; FLASH=YES; FP-POS=4			1569 Secs (2776 Secs) [==>2776.0 Secs]	[7]



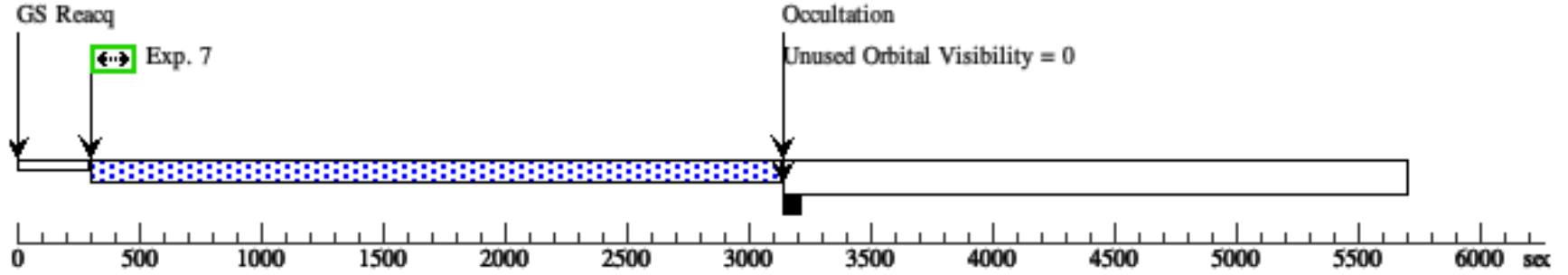
Orbit 4

Server Version: 20191203



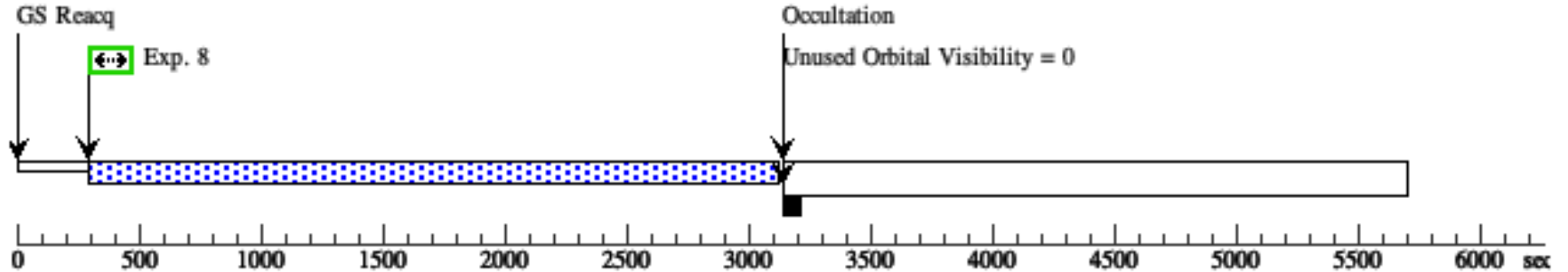
Orbit 5

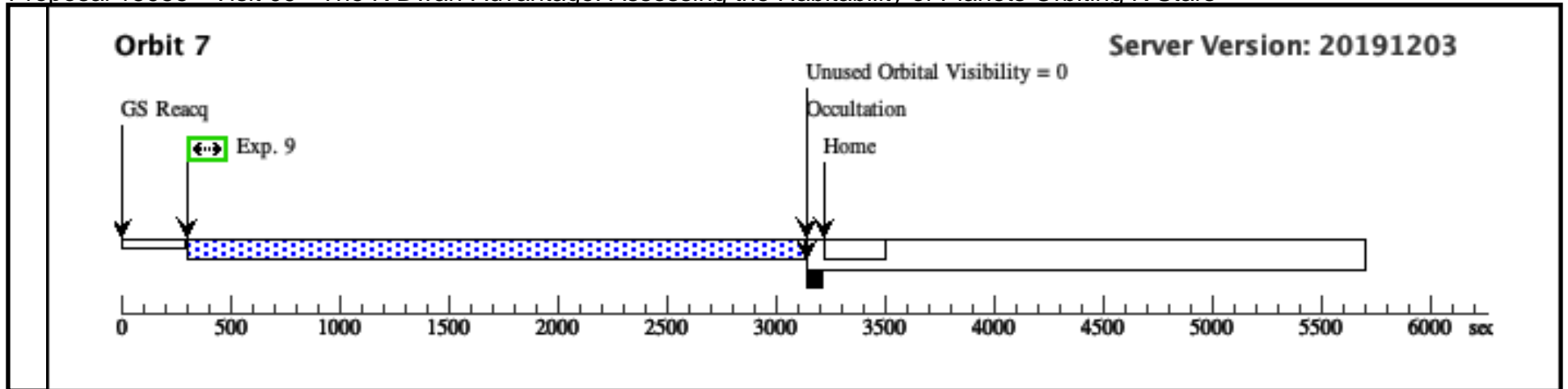
Server Version: 20191203



Orbit 6

Server Version: 20191203

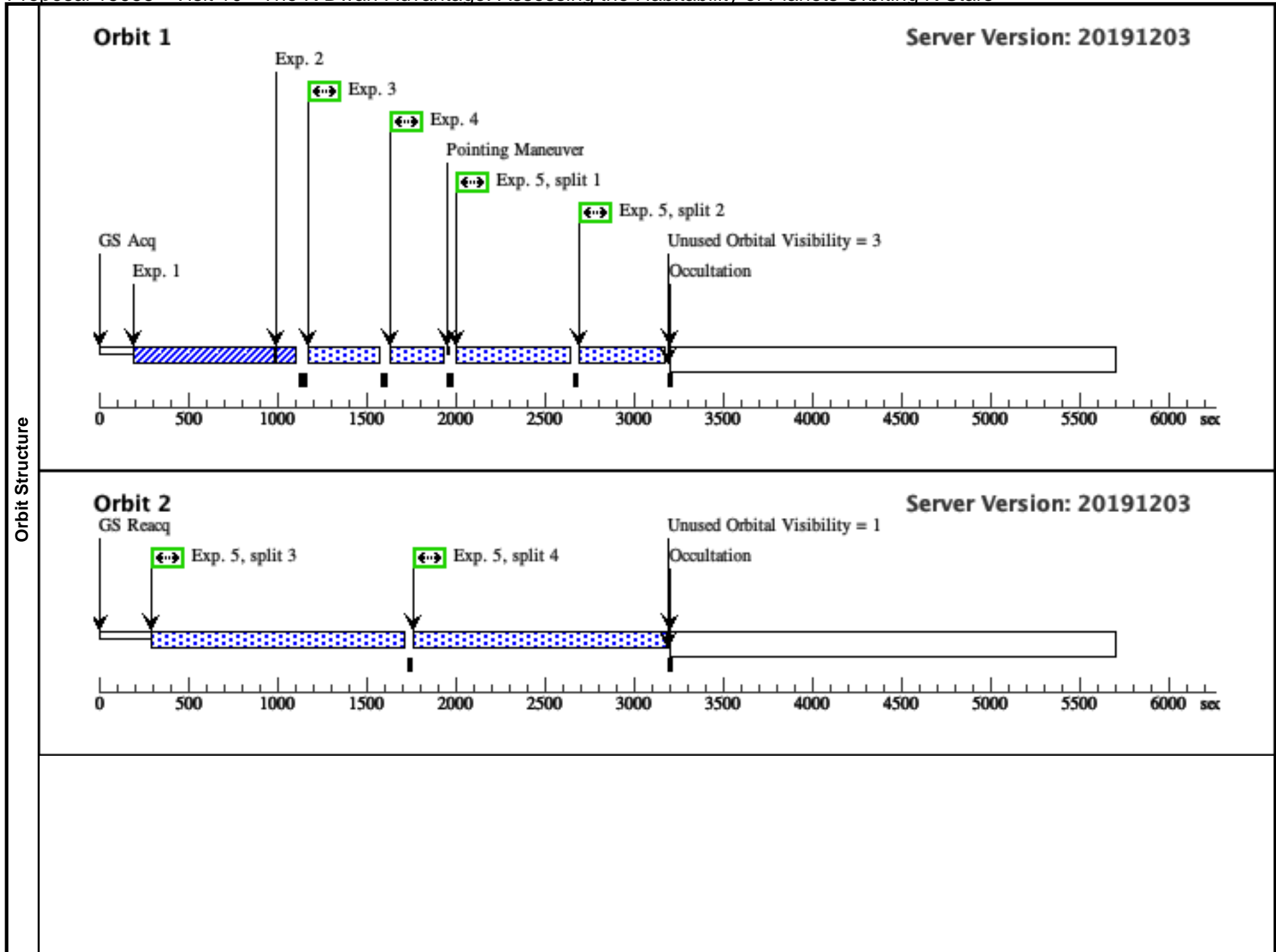


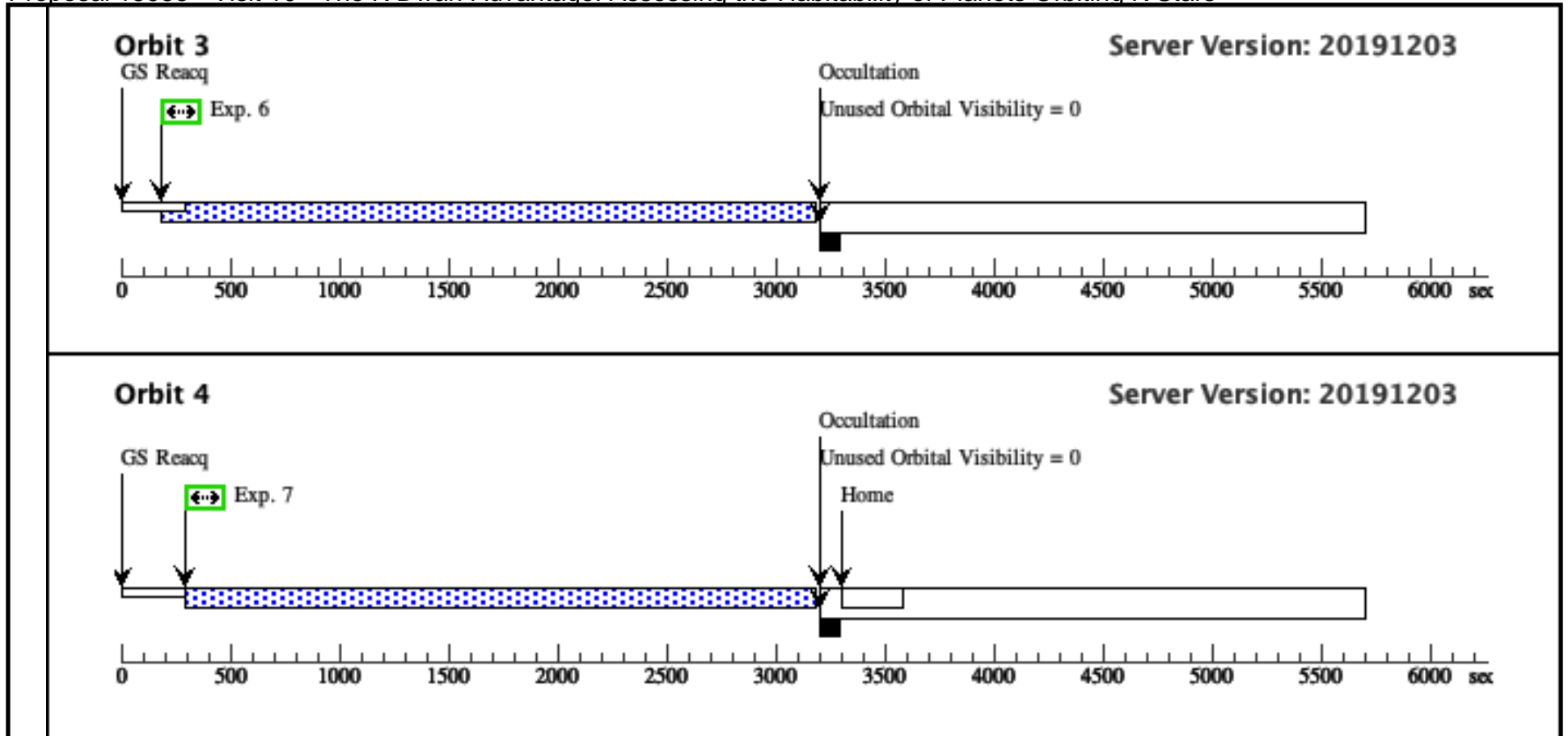


Proposal 15955 - Visit 10 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 10, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(10)	CD-35-1167	RA: 03 19 8.6665 (49.7861104d) Dec: -35 07 0.30 (-35.11675d) Equinox: J2000	Proper Motion RA: 88.661 mas/yr Proper Motion Dec: -20.045 mas/yr Parallax: 0.0219478" Epoch of Position: 2000	V=11.12	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392388)	(10) CD-35-1167	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			110.3 Secs (110.3 Secs) [==>]	[1]
	2	(1392351)	(10) CD-35-1167	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				9.0 Secs (9 Secs) [==>]	[1]
	3	(1371433)	(10) CD-35-1167	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 43; FLASH=YES; FP-POS=2			251 Secs (289 Secs) [==>289.0 Secs]	[1]
	4	(1371433)	(10) CD-35-1167	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 43; FLASH=YES; FP-POS=3			251 Secs (289 Secs) [==>289.0 Secs]	[1]
	5	(1371763)	(10) CD-35-1167	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			394 Secs (3592 Secs) [==>432.0 Secs (Split 1)] [==>432.0 Secs (Split 2)] [==>1364.0 Secs (Split 3)] [==>1364.0 Secs (Split 4)]	[2]
	6	(1371915)	(10) CD-35-1167	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 68; FLASH=YES; FP-POS=3			2219 Secs (2832 Secs) [==>2832.0 Secs]	[3]
	7	(1371915)	(10) CD-35-1167	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 68; FLASH=YES; FP-POS=4			2219 Secs (2834 Secs) [==>2834.0 Secs]	[4]

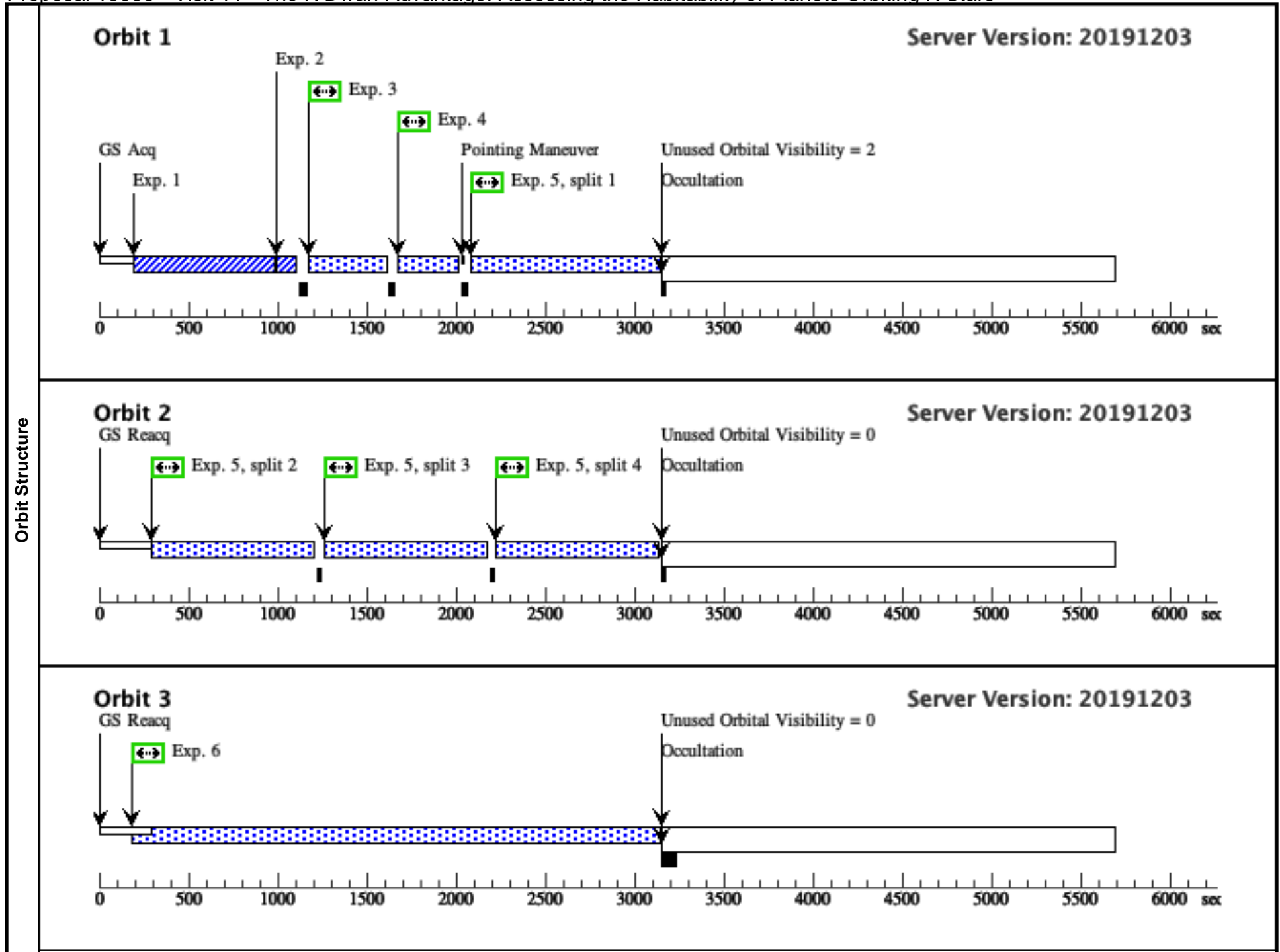


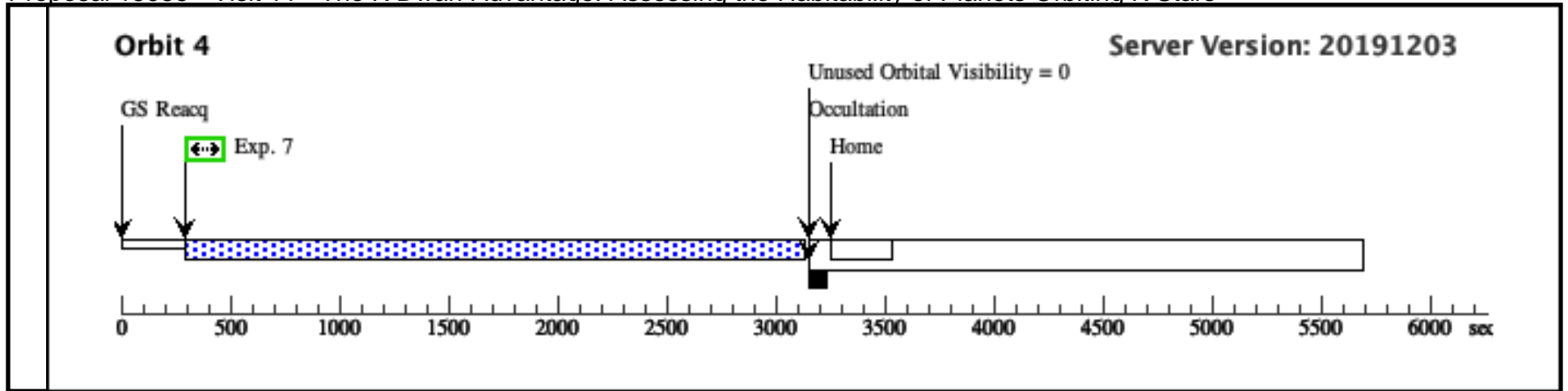


Proposal 15955 - Visit 11 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 11, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(11)	BD+16-502	RA: 03 43 52.5642 (55.9690175d) Dec: +16 40 19.31 (16.67203d) Equinox: J2000		V=9.9	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392390)	(11) BD+16-502	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			110.9 Secs (110.9 Secs) [==>]	[1]
	2	(1392352)	(11) BD+16-502	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				9.0 Secs (9 Secs) [==>]	[1]
	3	(1371434)	(11) BD+16-502	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 44; FLASH=YES; FP-POS=2			252 Secs (327 Secs) [==>327.0 Secs]	[1]
	4	(1371434)	(11) BD+16-502	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 44; FLASH=YES; FP-POS=3			252 Secs (327 Secs) [==>327.0 Secs]	[1]
	5	(1371764)	(11) BD+16-502	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			773 Secs (3428 Secs) [==>848.0 Secs (Split 1)] [==>860.0 Secs (Split 2)] [==>860.0 Secs (Split 3)] [==>860.0 Secs (Split 4)]	[2]
	6	(1371916)	(11) BD+16-502	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 79; FLASH=YES; FP-POS=3			2207 Secs (2788 Secs) [==>2788.0 Secs]	[3]
	7	(1371916)	(11) BD+16-502	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 79; FLASH=YES; FP-POS=4			2207 Secs (2790 Secs) [==>2790.0 Secs]	[4]

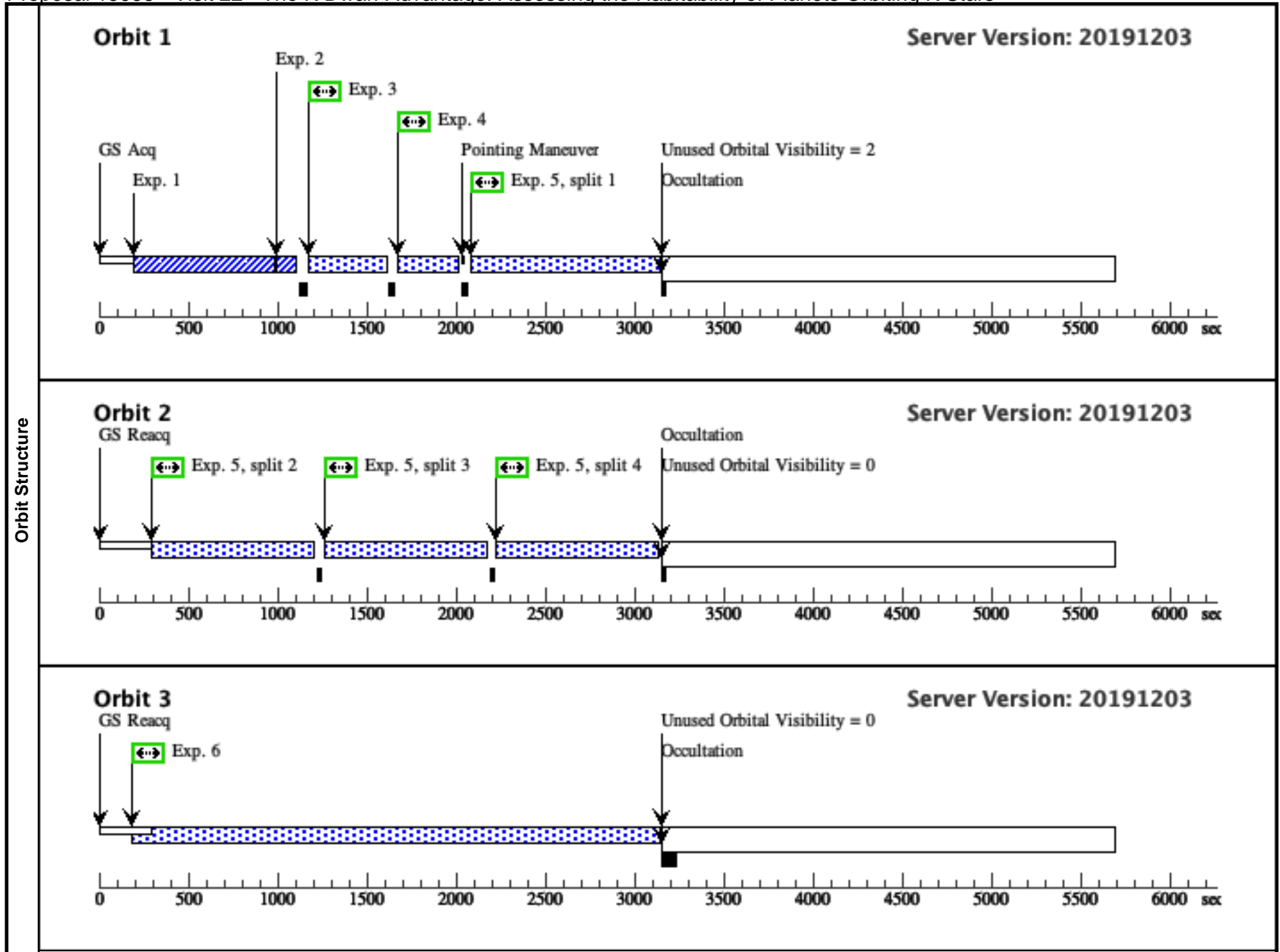


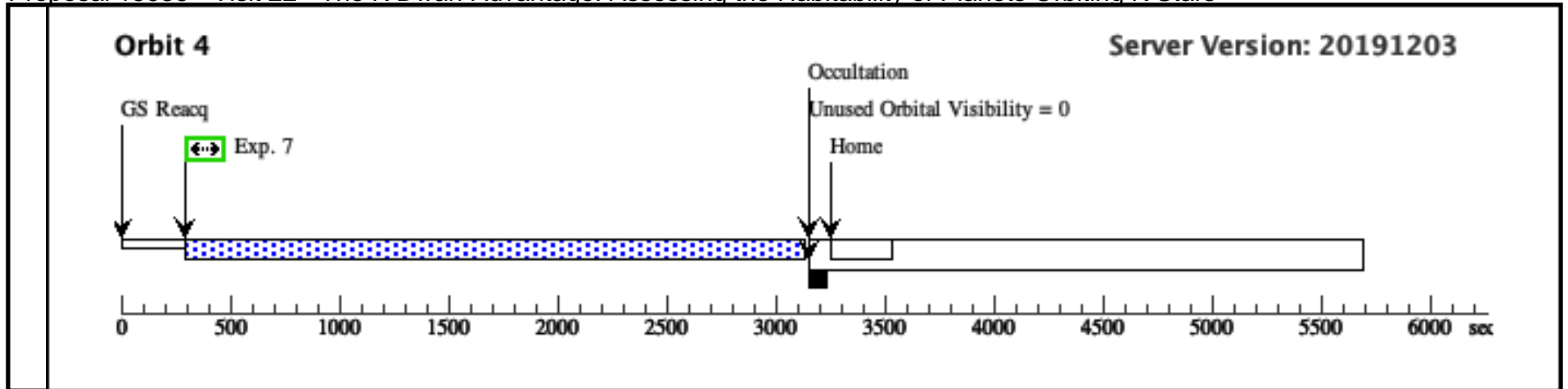


Proposal 15955 - Visit 22 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 22, failed Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none) <i>Comments: Copy of original visit 11 but with corrected target #22.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(22)	BD+16-502-COPY	RA: 03 43 52.5642 (55.9690175d) Dec: +16 40 19.31 (16.67203d) Equinox: J2000	Proper Motion RA: 157.95 mas/yr Proper Motion Dec: -316.326 mas/yr Parallax: .0581097" Epoch of Position: 2000.0	V=9.9	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392390)	(22) BD+16-502-CO PY	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			110.9 Secs (110.9 Secs) [==>]	[1]
	2	(1392352)	(22) BD+16-502-CO PY	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				9.0 Secs (9 Secs) [==>]	[1]
	3	(1371434)	(22) BD+16-502-CO PY	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 44; FLASH=YES; FP-POS=2			252 Secs (327 Secs) [==>327.0 Secs]	[1]
	4	(1371434)	(22) BD+16-502-CO PY	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 44; FLASH=YES; FP-POS=3			252 Secs (327 Secs) [==>327.0 Secs]	[1]
	5	(1371764)	(22) BD+16-502-CO PY	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			773 Secs (3428 Secs) [==>848.0 Secs (Split 1)] [==>860.0 Secs (Split 2)] [==>860.0 Secs (Split 3)] [==>860.0 Secs (Split 4)]	[1] [2]
	6	(1371916)	(22) BD+16-502-CO PY	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 79; FLASH=YES; FP-POS=3			2207 Secs (2788 Secs) [==>2788.0 Secs]	[3]
	7	(1371916)	(22) BD+16-502-CO PY	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 79; FLASH=YES; FP-POS=4			2207 Secs (2790 Secs) [==>2790.0 Secs]	[4]

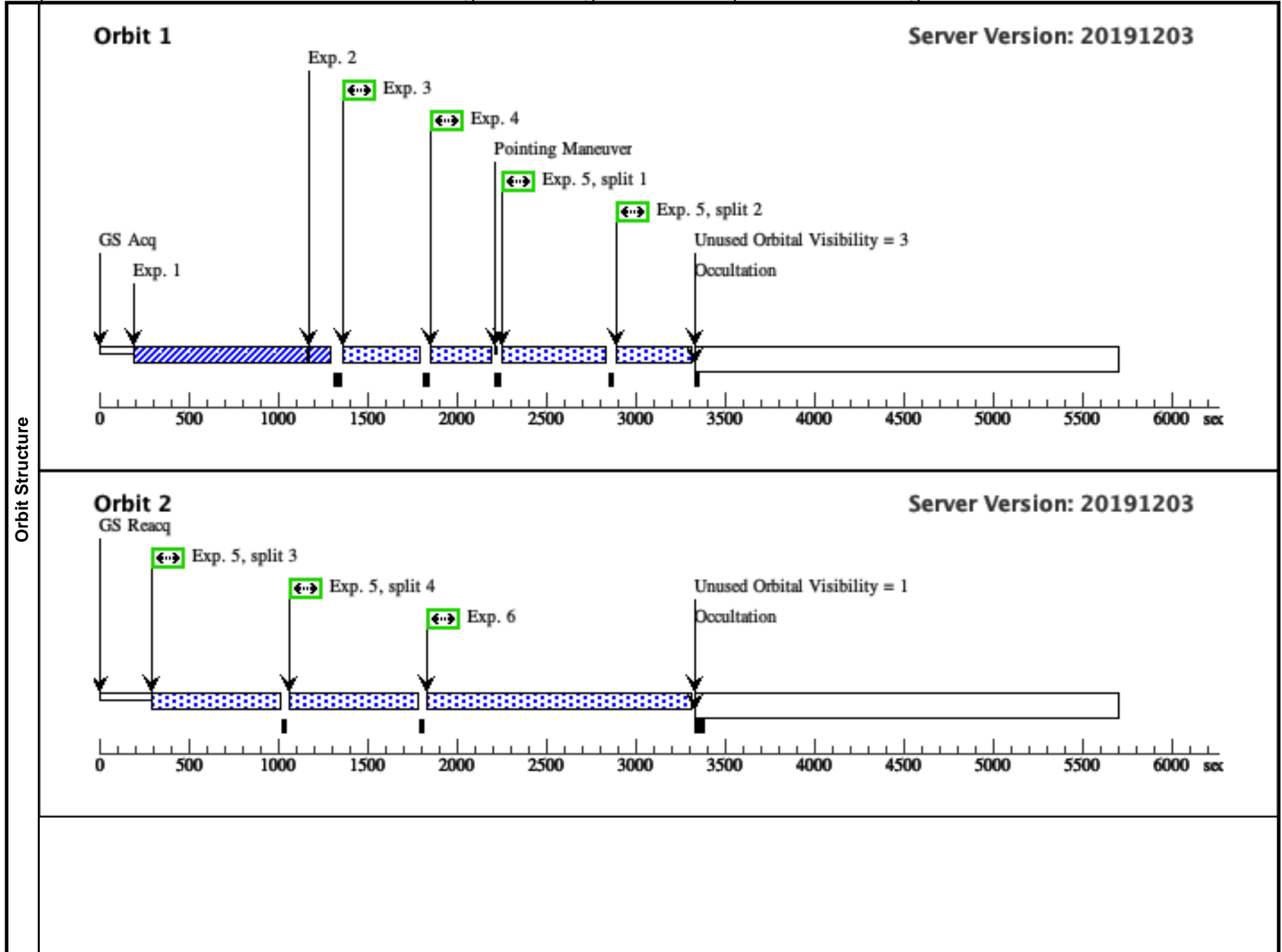


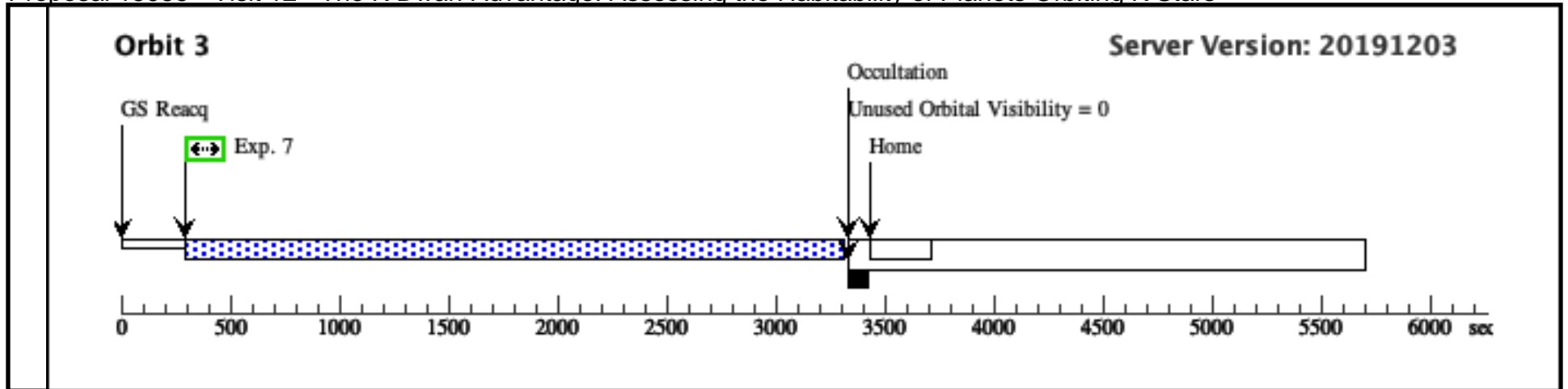


Proposal 15955 - Visit 12 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 12, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(12)	TYC-8083-45-5	RA: 04 48 0.6677 (72.0027821d) Dec: -50 41 25.70 (-50.69047d) Equinox: J2000	Proper Motion RA: 56.890 mas/yr Proper Motion Dec: 19.240 mas/yr Parallax: 0.0167787" Epoch of Position: 2000	V=11.678	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392392)	(12) TYC-8083-45-5	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			156.1 Secs (156.1 Secs) [==>]	[1]
	2	(1392353)	(12) TYC-8083-45-5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11.1 Secs (11.1 Secs) [==>]	[1]
	3	(1371435)	(12) TYC-8083-45-5	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 71; FLASH=YES; FP-POS=2			309 Secs (322 Secs) [==>322.0 Secs]	[1]
	4	(1371435)	(12) TYC-8083-45-5	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 71; FLASH=YES; FP-POS=3			309 Secs (322 Secs) [==>322.0 Secs]	[1]
	5	(1371765)	(12) TYC-8083-45-5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			358 Secs (2068 Secs) [==>371.0 Secs (Split 1)] [==>371.0 Secs (Split 2)] [==>663.0 Secs (Split 3)] [==>663.0 Secs (Split 4)]	[1] [2]
	6	(1371917)	(12) TYC-8083-45-5	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=33 53; FLASH=YES; FP-POS=3			1008 Secs (1313 Secs) [==>1313.0 Secs]	[2]
	7	(1371917)	(12) TYC-8083-45-5	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=33 53; FLASH=YES; FP-POS=4			1008 Secs (2967 Secs) [==>2967.0 Secs]	[3]

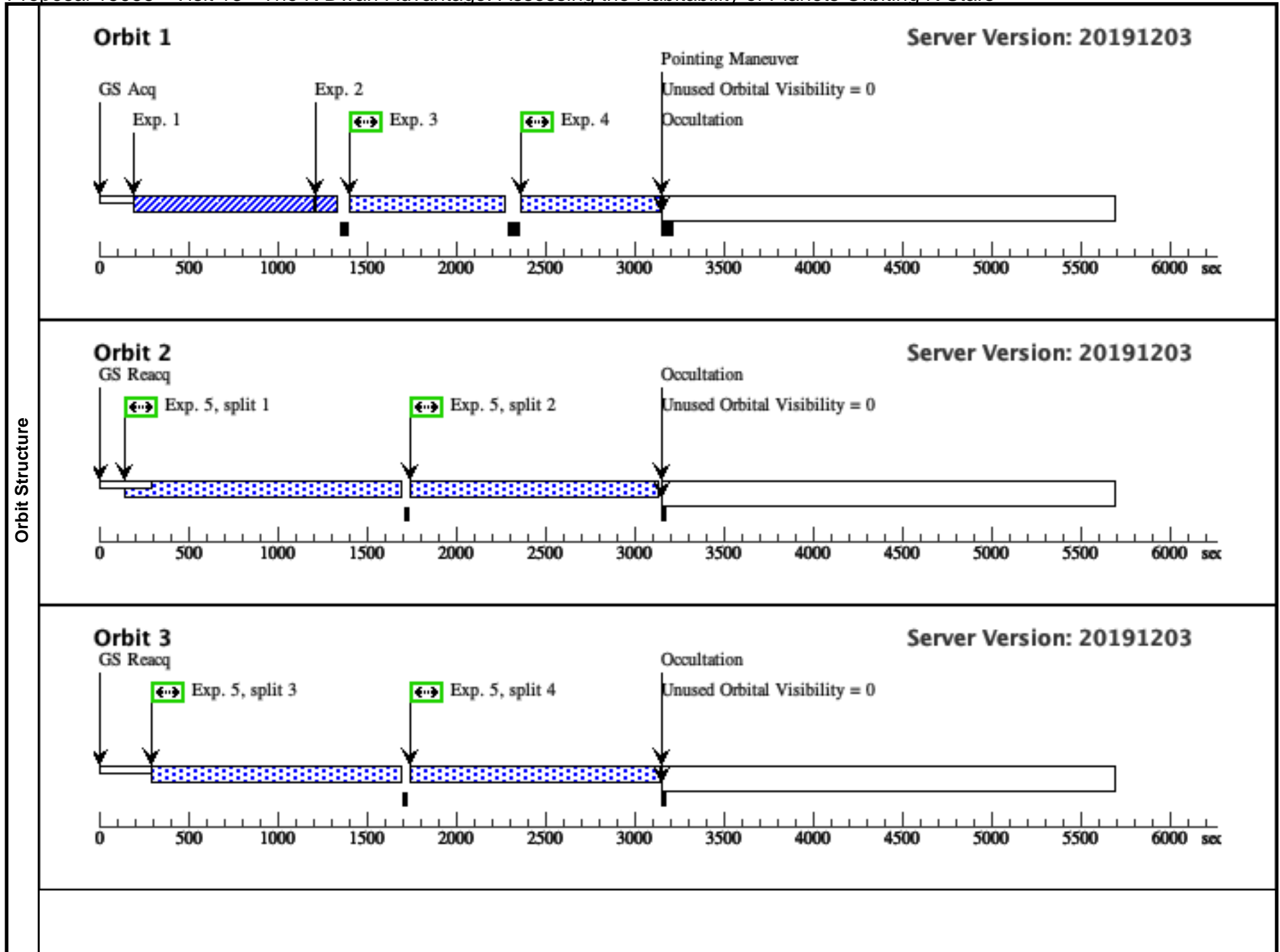


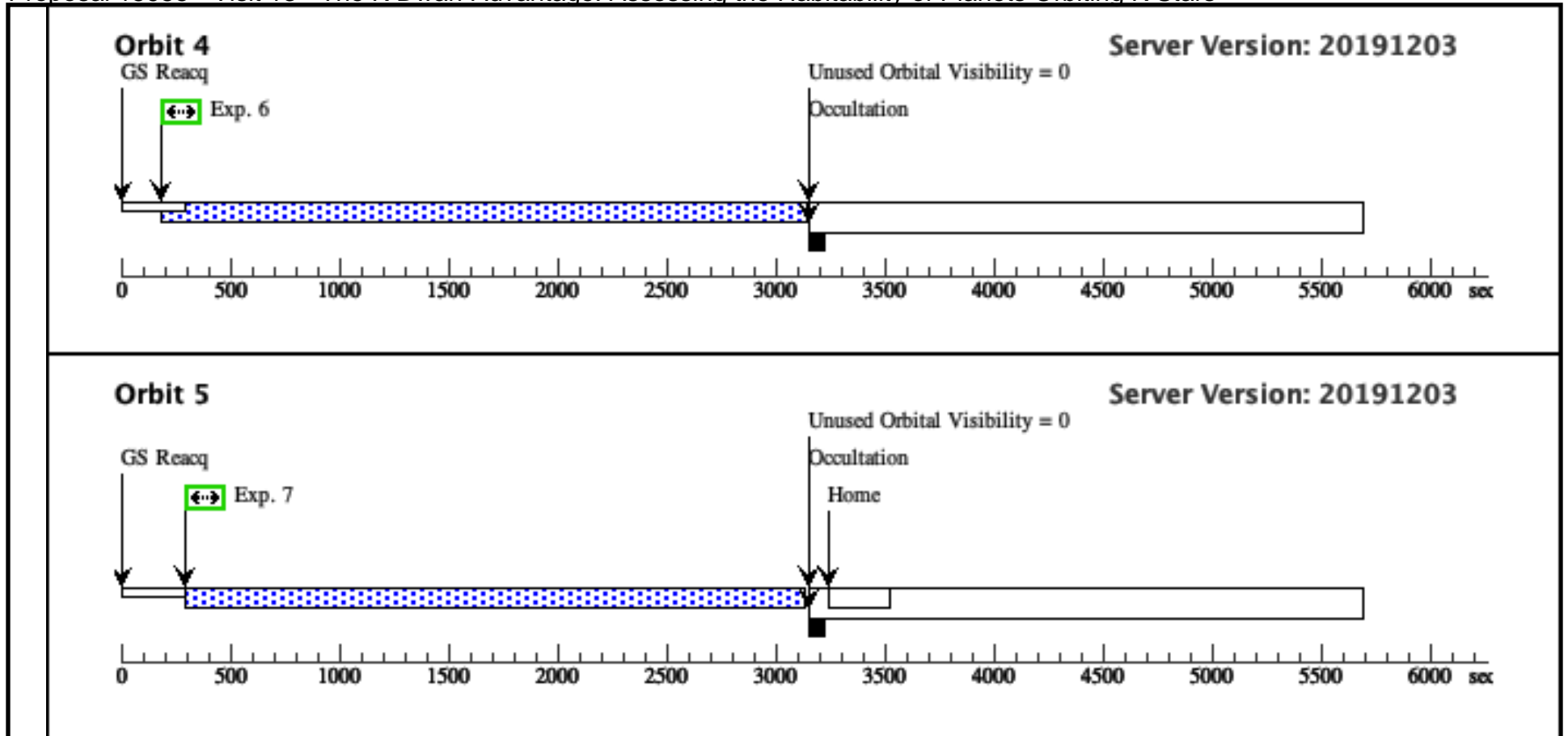


Proposal 15955 - Visit 13 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 13, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(13)	CD-23-1056	RA: 02 46 42.8871 (41.6786963d) Dec: -23 05 11.80 (-23.08661d) Equinox: J2000	Proper Motion RA: 294.923 mas/yr Proper Motion Dec: 140.972 mas/yr Parallax: 0.0427591" Epoch of Position: 2000	V=10.237	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392393)	(13) CD-23-1056	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			166.2 Secs (166.2 Secs) [==>]	[1]
	2	(1392354)	(13) CD-23-1056	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11.2 Secs (11.2 Secs) [==>]	[1]
	3	(1371436)	(13) CD-23-1056	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 76; FLASH=YES; FP-POS=2			321 Secs (761 Secs) [==>761.0 Secs]	[1]
	4	(1371436)	(13) CD-23-1056	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 76; FLASH=YES; FP-POS=3			321 Secs (761 Secs) [==>761.0 Secs]	[1]
	5	(1371766)	(13) CD-23-1056	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			876 Secs (5370 Secs) [==>1342.0 Secs (Split 1)] [==>1342.0 Secs (Split 2)] [==>1343.0 Secs (Split 3)] [==>1343.0 Secs (Split 4)]	[2] [3]
	6	(1371918)	(13) CD-23-1056	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=42 86; FLASH=YES; FP-POS=3			2507 Secs (2789 Secs) [==>2789.0 Secs]	[4]
	7	(1371918)	(13) CD-23-1056	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=42 86; FLASH=YES; FP-POS=4			2507 Secs (2791 Secs) [==>2791.0 Secs]	[5]

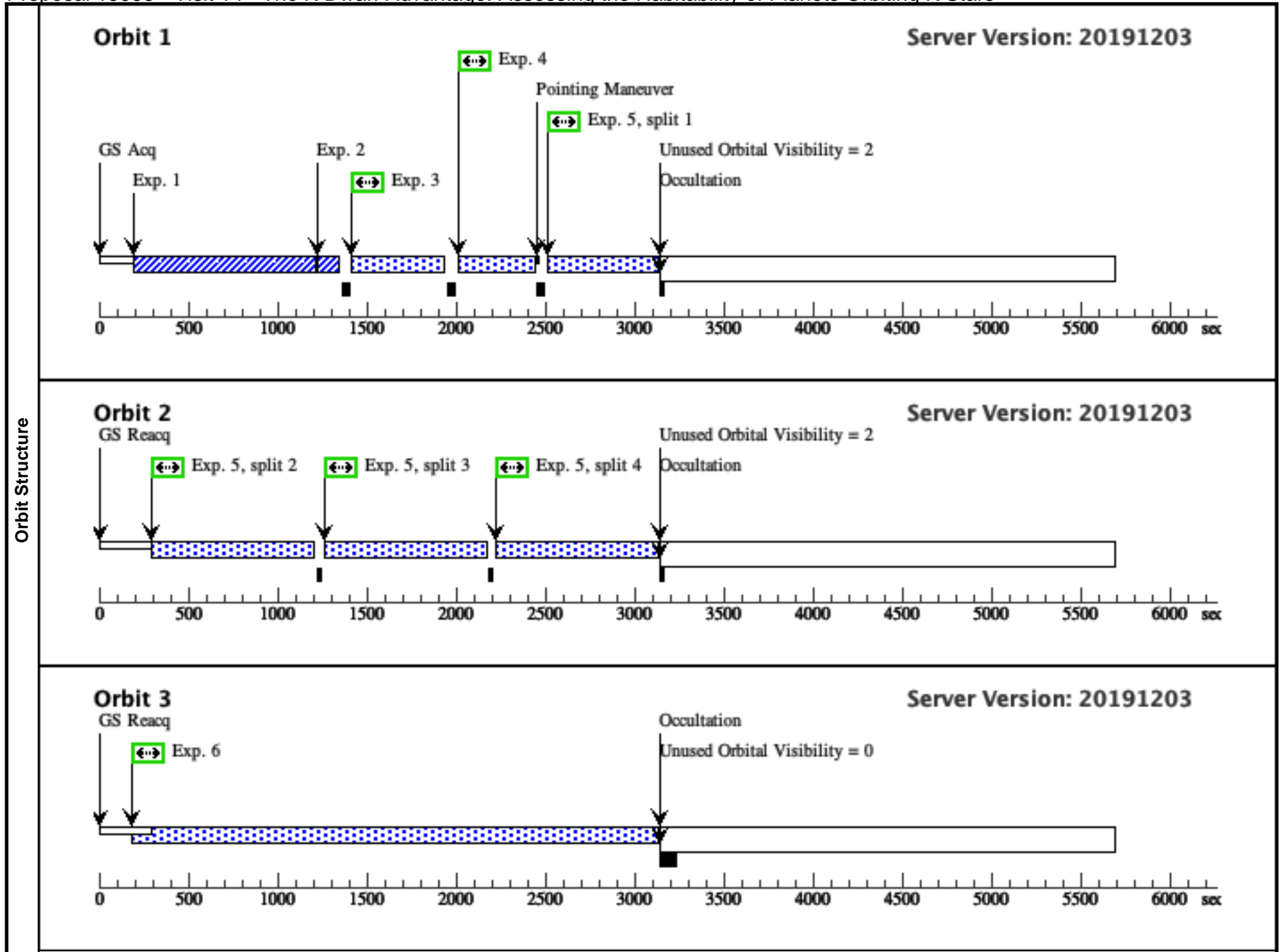


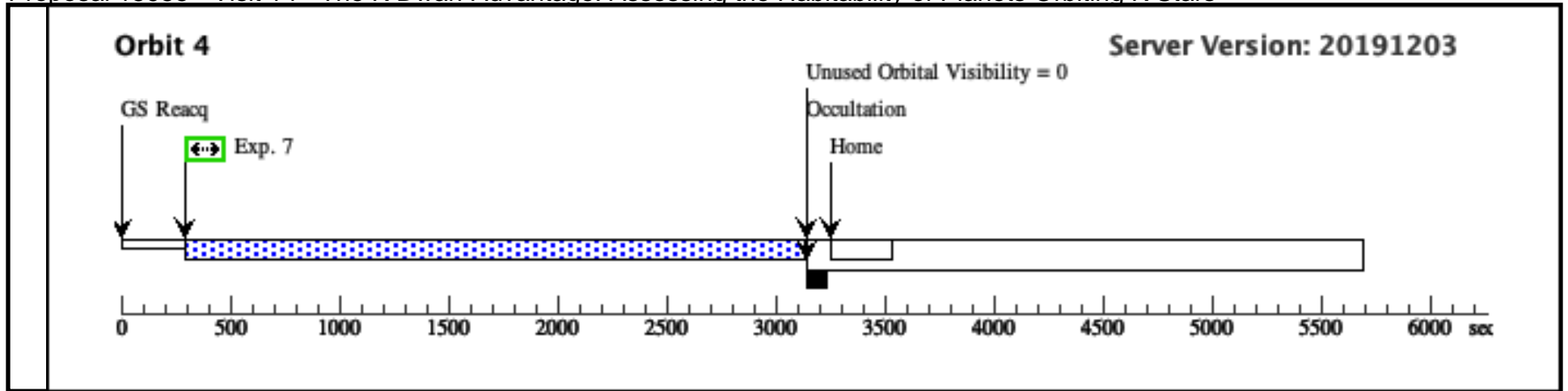


Proposal 15955 - Visit 14 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 14, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(14)	UCAC4-518-008871	RA: 04 45 19.6092 (71.3317050d) Dec: +13 34 27.34 (13.57426d) Equinox: J2000	Proper Motion RA: 88.750 mas/yr Proper Motion Dec: -10.299 mas/yr Parallax: 0.0193389" Epoch of Position: 2000	V=13.089	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392394)	(14) UCAC4-518-008871	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			168.6 Secs (168.6 Secs) [==>]	[1]
	2	(1392355)	(14) UCAC4-518-008871	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11.6 Secs (11.6 Secs) [==>]	[1]
	3	(1371437)	(14) UCAC4-518-008871	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 77; FLASH=YES; FP-POS=2			324 Secs (416 Secs) [==>416.0 Secs]	[1]
	4	(1371437)	(14) UCAC4-518-008871	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 77; FLASH=YES; FP-POS=3			324 Secs (416 Secs) [==>416.0 Secs]	[1]
	5	(1371767)	(14) UCAC4-518-008871	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			316 Secs (2979 Secs) [==>408.0 Secs (Split 1)] [==>857.0 Secs (Split 2)] [==>857.0 Secs (Split 3)] [==>857.0 Secs (Split 4)]	[1] [2]
	6	(1371785)	(14) UCAC4-518-008871	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=33 99; FLASH=YES; FP-POS=3			1795 Secs (2781 Secs) [==>2781.0 Secs]	[3]
	7	(1371785)	(14) UCAC4-518-008871	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=33 99; FLASH=YES; FP-POS=4			1795 Secs (2783 Secs) [==>2783.0 Secs]	[4]

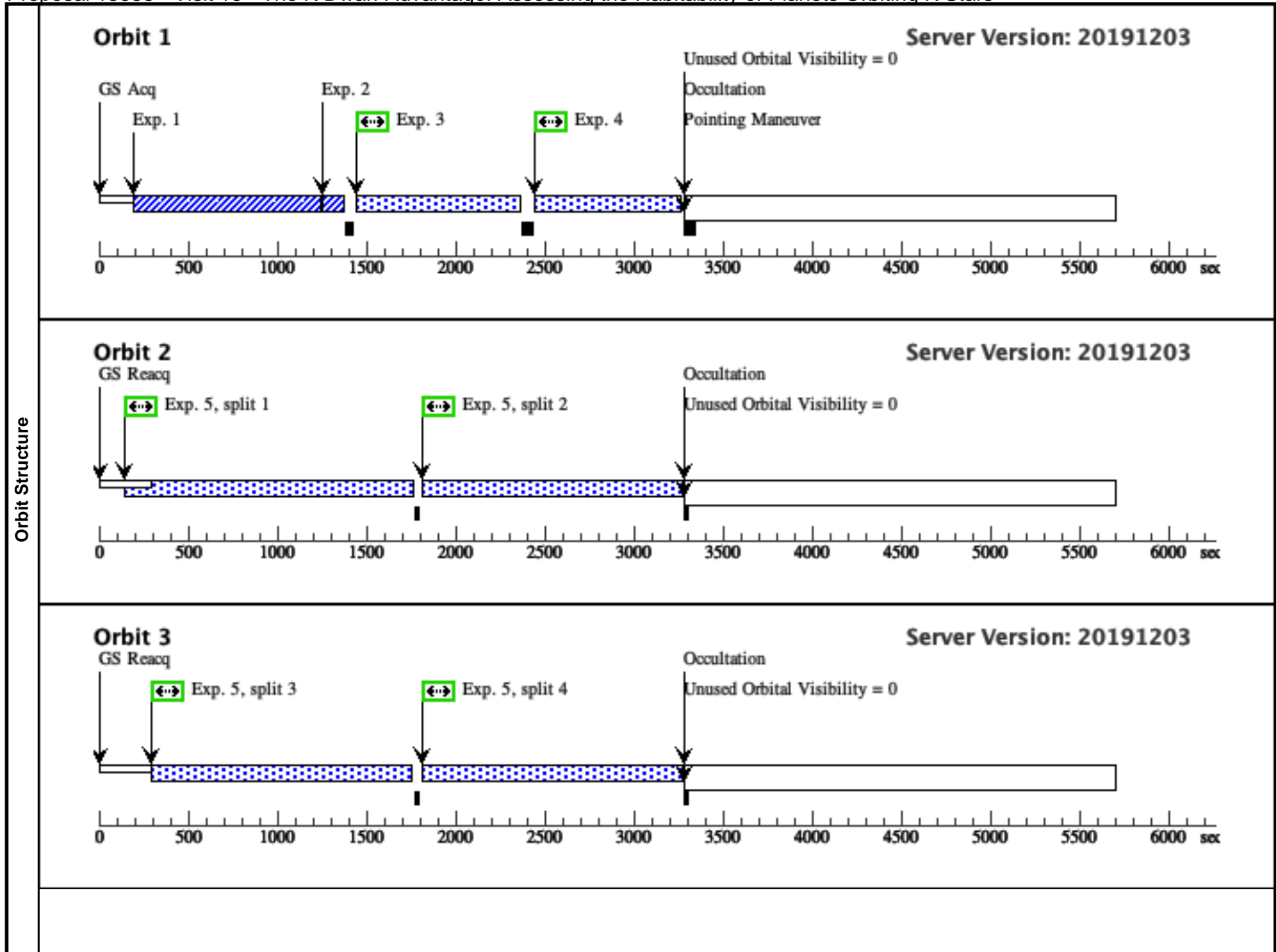


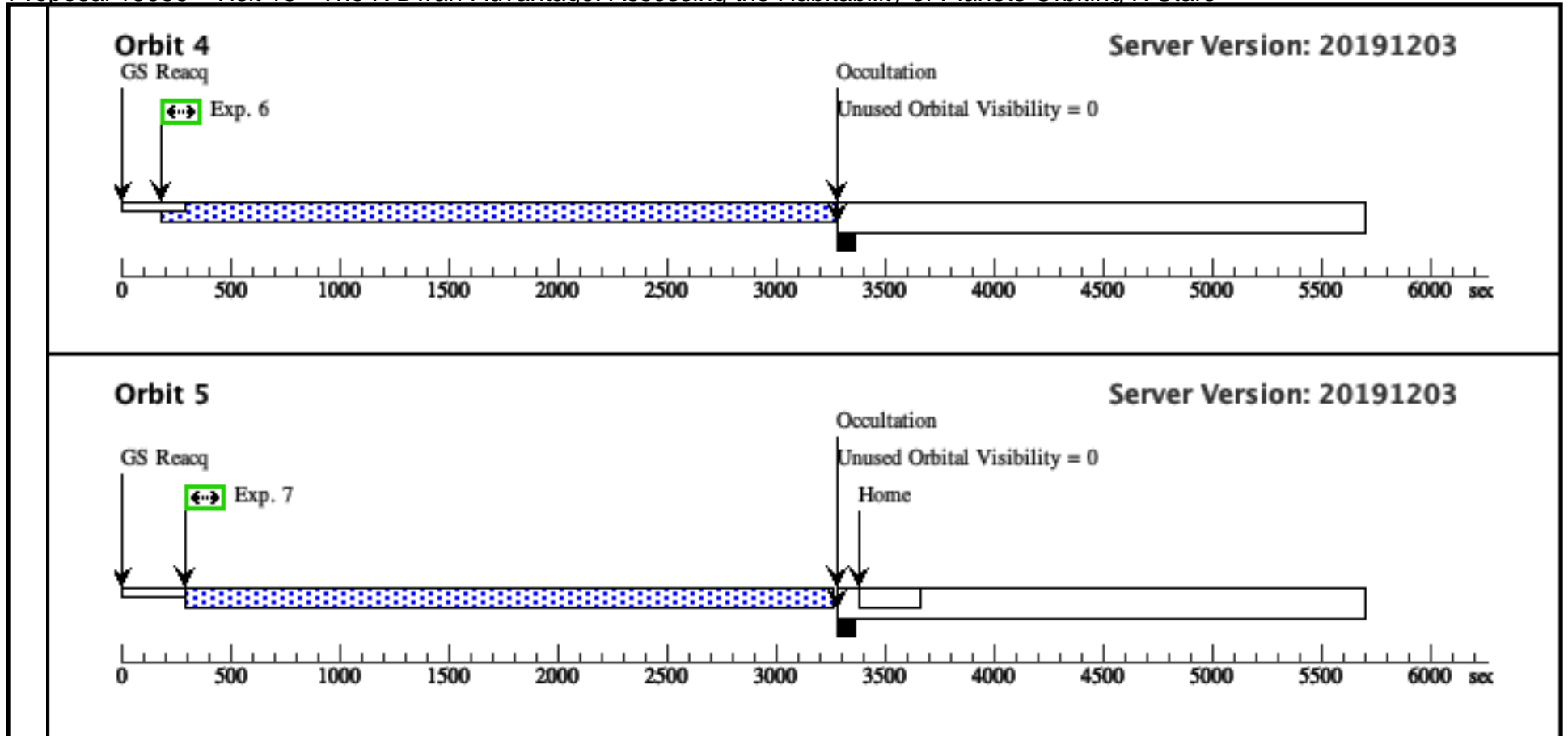


Proposal 15955 - Visit 15 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 15, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(15)	BD+49-2126	RA: 12 15 8.8224 (183.7867600d) Dec: +48 43 57.24 (48.73257d) Equinox: J2000	Proper Motion RA: -226.206 mas/yr Proper Motion Dec: -52.170 mas/yr Parallax: 0.0445245" Epoch of Position: 2000	V=10.507	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392395)	(15) BD+49-2126	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			175.1 Secs (175.1 Secs) [==>]	[1]
	2	(1392357)	(15) BD+49-2126	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11.8 Secs (11.8 Secs) [==>]	[1]
	3	(1371438)	(15) BD+49-2126	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 80; FLASH=YES; FP-POS=2			331 Secs (807 Secs) [==>807.0 Secs]	[1]
	4	(1371438)	(15) BD+49-2126	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 80; FLASH=YES; FP-POS=3			331 Secs (807 Secs) [==>807.0 Secs]	[1]
	5	(1371768)	(15) BD+49-2126	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			969 Secs (5626 Secs) [==>1406.0 Secs (Split 1)] [==>1406.0 Secs (Split 2)] [==>1407.0 Secs (Split 3)] [==>1407.0 Secs (Split 4)]	[2] [3]
	6	(1371927)	(15) BD+49-2126	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=43 67; FLASH=YES; FP-POS=3			2781 Secs (2917 Secs) [==>2917.0 Secs]	[4]
	7	(1371927)	(15) BD+49-2126	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=43 67; FLASH=YES; FP-POS=4			2781 Secs (2919 Secs) [==>2919.0 Secs]	[5]





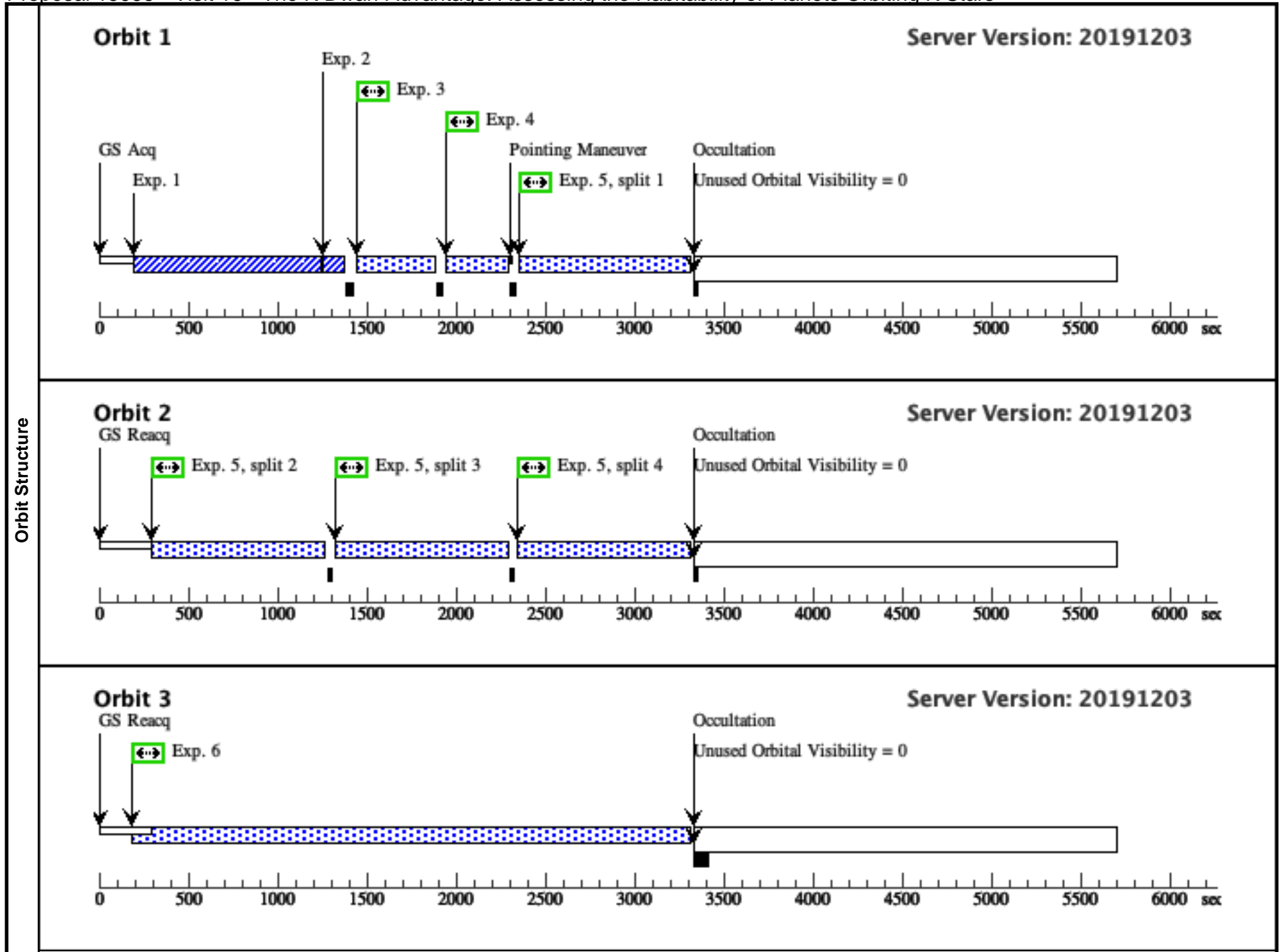
Proposal 15955 - Visit 16 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

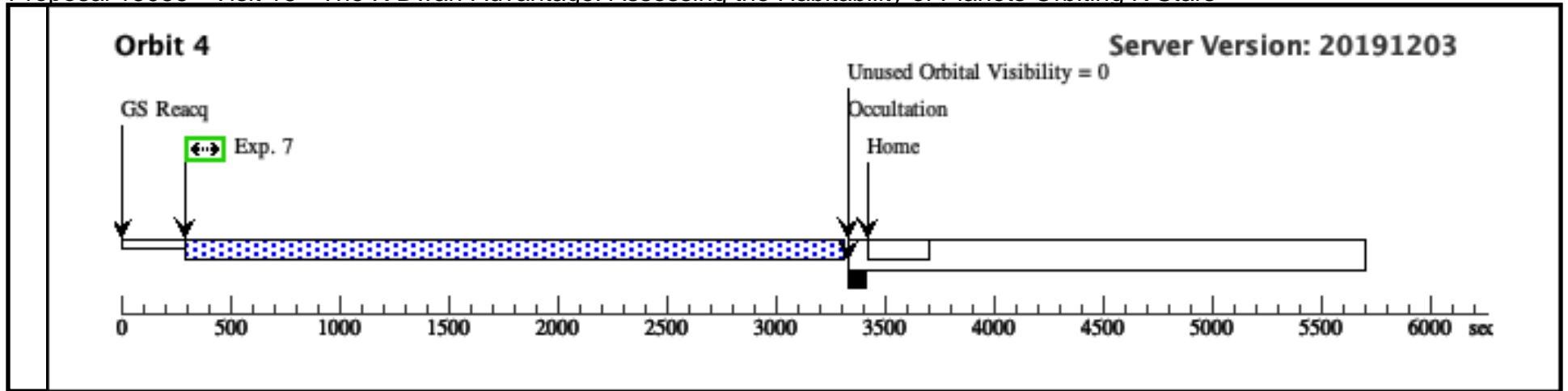
Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 16, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: COS/FUV, COS/NUV				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(16)	TYC-8098-414-1	RA: 05 33 25.5761 (83.3565671d) Dec: -51 17 13.18 (-51.28699d) Equinox: J2000	Proper Motion RA: 42.755 mas/yr Proper Motion Dec: 26.101 mas/yr Parallax: 0.0185362" Epoch of Position: 2000	V=11.72	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	Category=STAR Description=[K V-IV] Extended=NO					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392396)	(16) TYC-8098-414-1	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			175.3 Secs (175.3 Secs) [==>]	[1]
	2	(1392358)	(16) TYC-8098-414-1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11.8 Secs (11.8 Secs) [==>]	[1]
	3	(1371439)	(16) TYC-8098-414-1	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 80; FLASH=YES; FP-POS=2			331 Secs (331 Secs) [==>]	[1]
	4	(1371439)	(16) TYC-8098-414-1	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 80; FLASH=YES; FP-POS=3			331 Secs (331 Secs) [==>]	[1]
	5	(1371769)	(16) TYC-8098-414-1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			755 Secs (3512 Secs) [==>(Split 1)] [==>919.0 Secs (Split 2)] [==>919.0 Secs (Split 3)] [==>919.0 Secs (Split 4)]	[1] [2]
	6	(1371928)	(16) TYC-8098-414-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 58; FLASH=YES; FP-POS=3			2154 Secs (2965 Secs) [==>2965.0 Secs]	[3]
	7	(1371928)	(16) TYC-8098-414-1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 58; FLASH=YES; FP-POS=4			2154 Secs (2967 Secs) [==>2967.0 Secs]	[4]

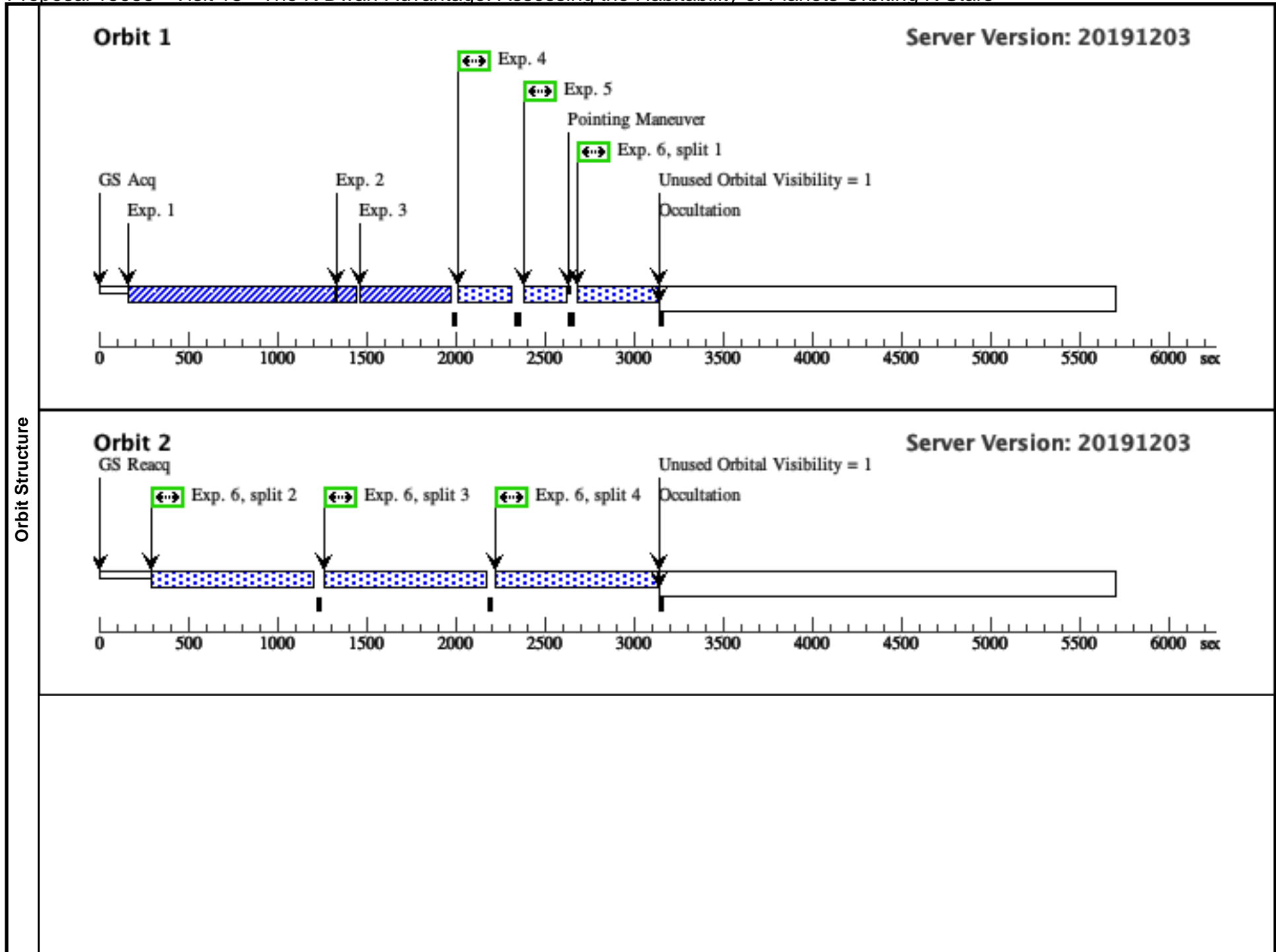


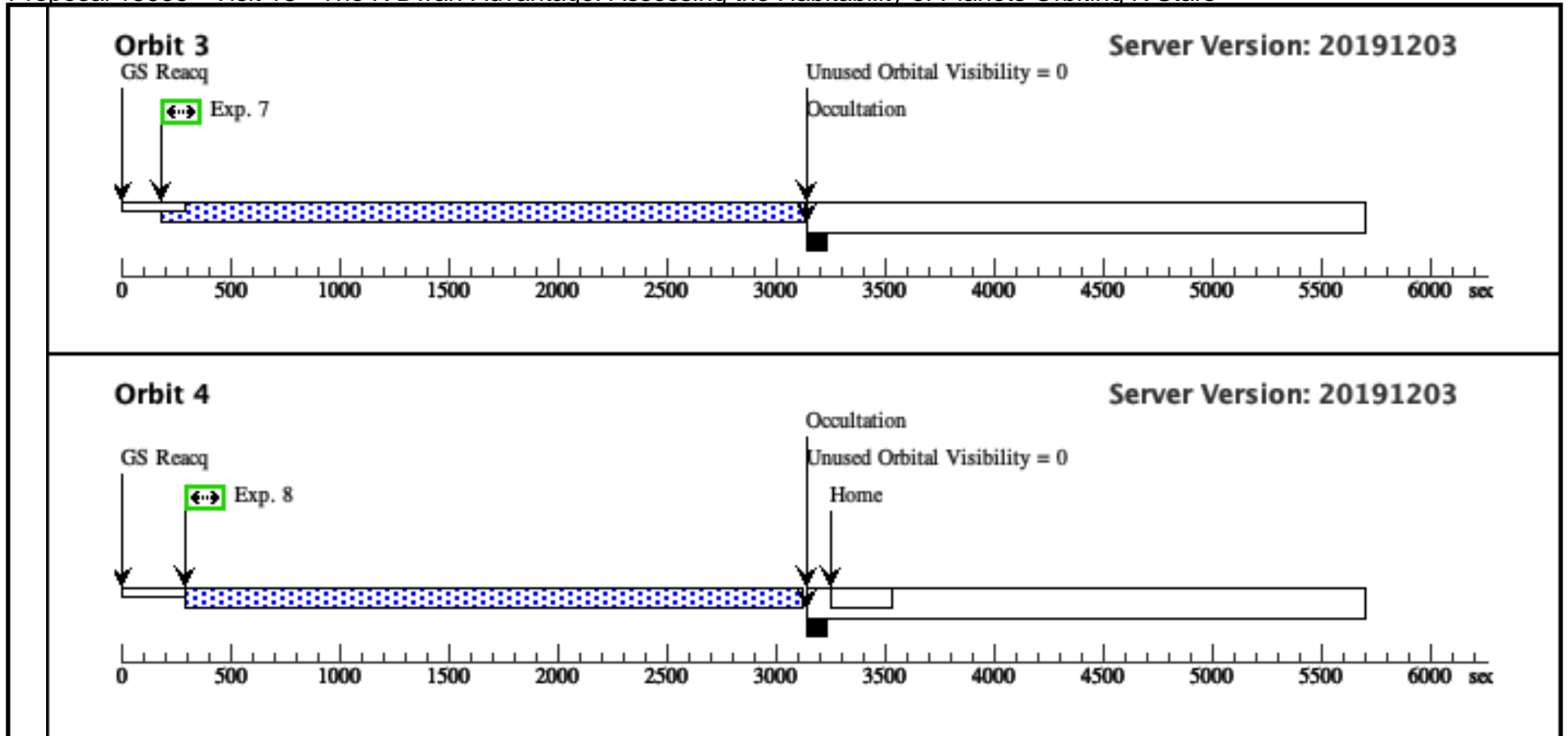


Proposal 15955 - Visit 18 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 18, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(18)	STKM-1-495	RA: 04 35 2.5510 (68.7606292d) Dec: +08 39 30.55 (8.65849d) Equinox: J2000	Proper Motion RA: 90.951 mas/yr Proper Motion Dec: -0.741 mas/yr Parallax: 0.0168518" Epoch of Position: 2000	V=11.88	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[M V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1397938)	(18) STKM-1-495	COS/NUV, ACQ/SEARCH, PSA	G230L 2950 A	CENTER=FLUX-W T-FLR; SCAN-SIZE=3; STEP-SIZE=1.767			72 Secs (72 Secs) [==>]	[1]
	2	(1397940)	(18) STKM-1-495	COS/NUV, ACQ/PEAKXD, PSA	G230L 2950 A	STRIPE=MEDIUM			49 Secs (49 Secs) [==>]	[1]
	3	(1397938)	(18) STKM-1-495	COS/NUV, ACQ/PEAKD, PSA	G230L 2950 A	CENTER=FLUX-W T-FLR; STEP-SIZE=0.9; NUM-POS=5			72 Secs (72 Secs) [==>]	[1]
	4	(1371440)	(18) STKM-1-495	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 91; FLASH=YES; FP-POS=2			364 Secs (220 Secs) [==>220.0 Secs]	[1]
	5	(1371440)	(18) STKM-1-495	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 91; FLASH=YES; FP-POS=3			364 Secs (220 Secs) [==>220.0 Secs]	[1]
	6	(1371770)	(18) STKM-1-495	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			382 Secs (2806 Secs) [==>238.0 Secs (Split 1)] [==>856.0 Secs (Split 2)] [==>856.0 Secs (Split 3)] [==>856.0 Secs (Split 4)]	[1] [2]
	7	(1371929)	(18) STKM-1-495	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 31; FLASH=YES; FP-POS=3			2152 Secs (2777 Secs) [==>2777.0 Secs]	[3]
	8	(1371929)	(18) STKM-1-495	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 31; FLASH=YES; FP-POS=4			2152 Secs (2779 Secs) [==>2779.0 Secs]	[4]

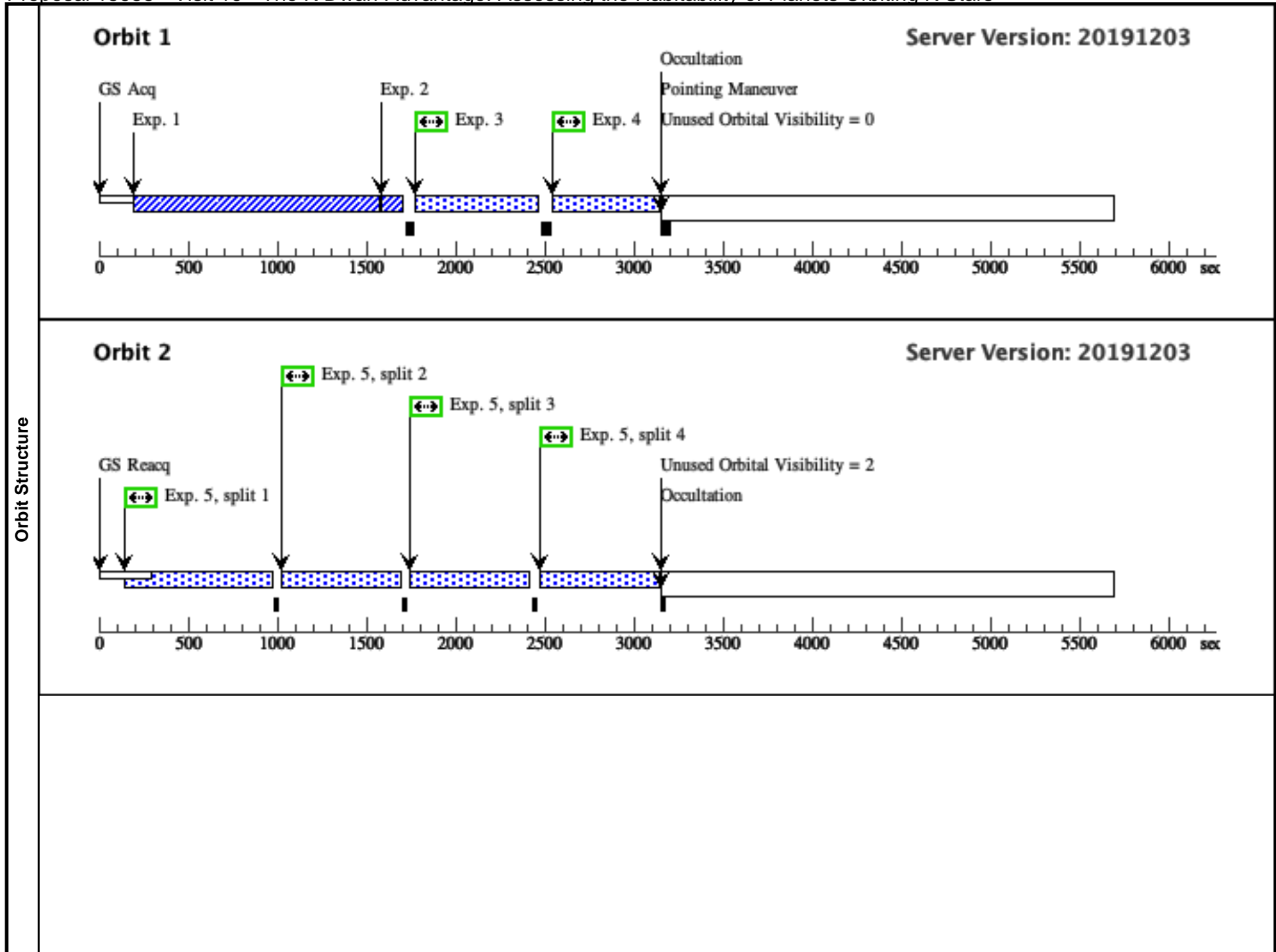


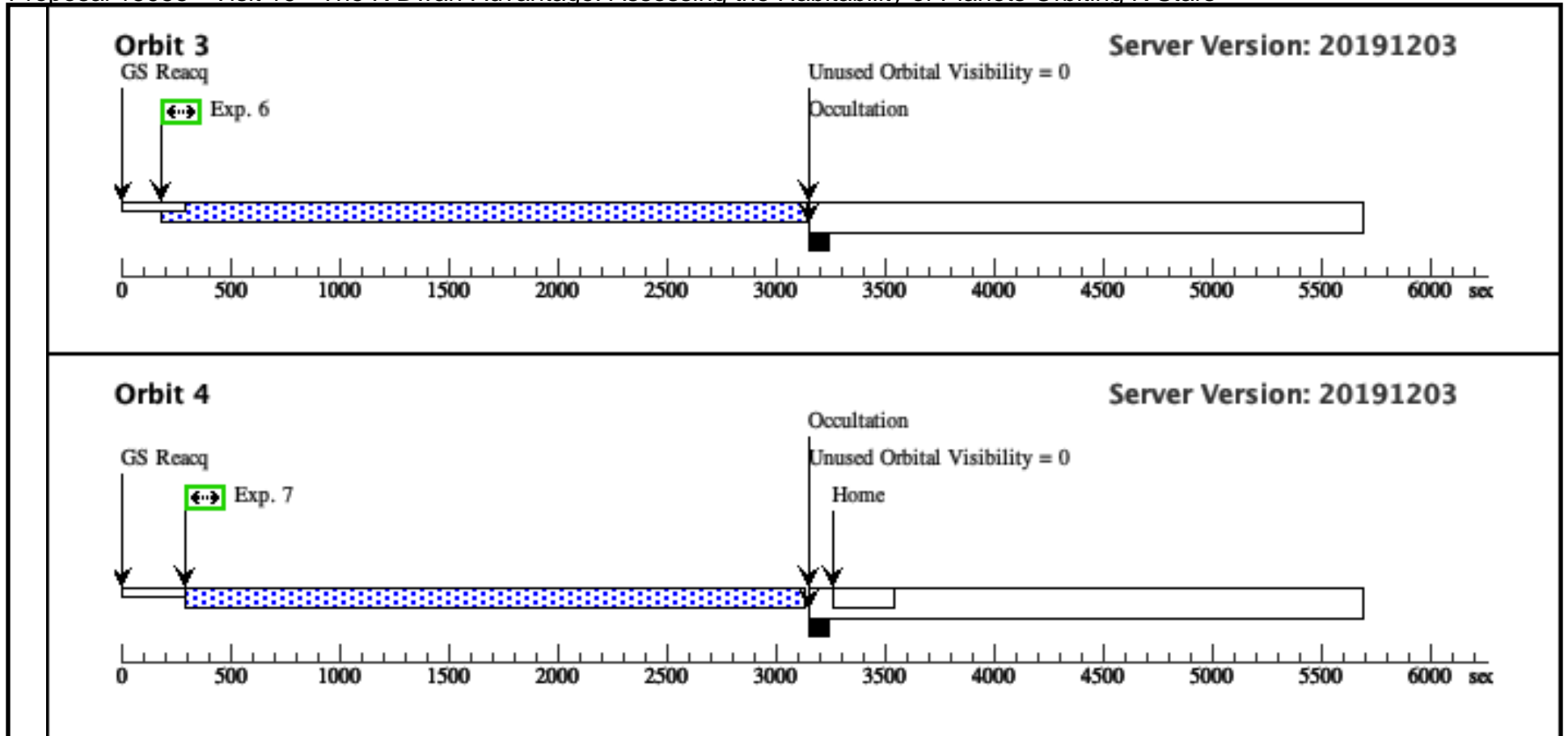


Proposal 15955 - Visit 19 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 19, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(19)	V-V925-TAU	RA: 04 30 38.1974 (67.6591558d) Dec: +22 54 28.83 (22.90801d) Equinox: J2000	Proper Motion RA: 90.28 mas/yr Proper Motion Dec: -43.731 mas/yr Parallax: 0.0196336" Epoch of Position: 2000	V=13.015	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[M V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392401)	(19) V-V925-TAU	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			257.5 Secs (257.5 Secs) [==>]	[1]
	2	(1392365)	(19) V-V925-TAU	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				14.7 Secs (14.7 Secs) [==>]	[1]
	3	(1371441)	(19) V-V925-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 04; FLASH=YES; FP-POS=2			414 Secs (580 Secs) [==>580.0 Secs]	[1]
	4	(1371441)	(19) V-V925-TAU	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 04; FLASH=YES; FP-POS=3			414 Secs (580 Secs) [==>580.0 Secs]	[1]
	5	(1371771)	(19) V-V925-TAU	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			383 Secs (2472 Secs) [==>618.0 Secs (Split 1)] [==>618.0 Secs (Split 2)] [==>618.0 Secs (Split 3)] [==>618.0 Secs (Split 4)]	[2]
	6	(1371930)	(19) V-V925-TAU	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 35; FLASH=YES; FP-POS=3			2160 Secs (2789 Secs) [==>2789.0 Secs]	[3]
	7	(1371930)	(19) V-V925-TAU	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 35; FLASH=YES; FP-POS=4			2160 Secs (2791 Secs) [==>2791.0 Secs]	[4]

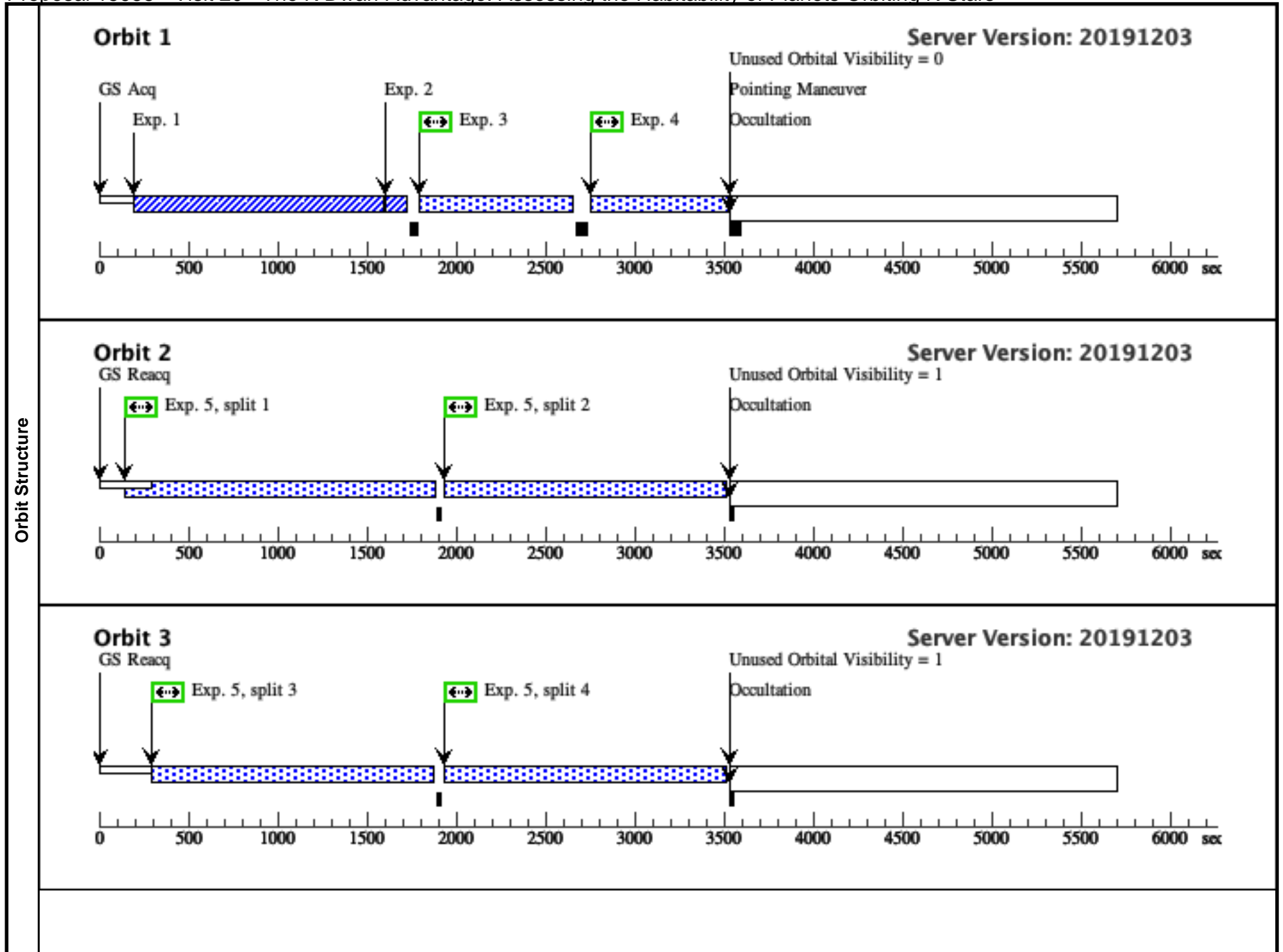


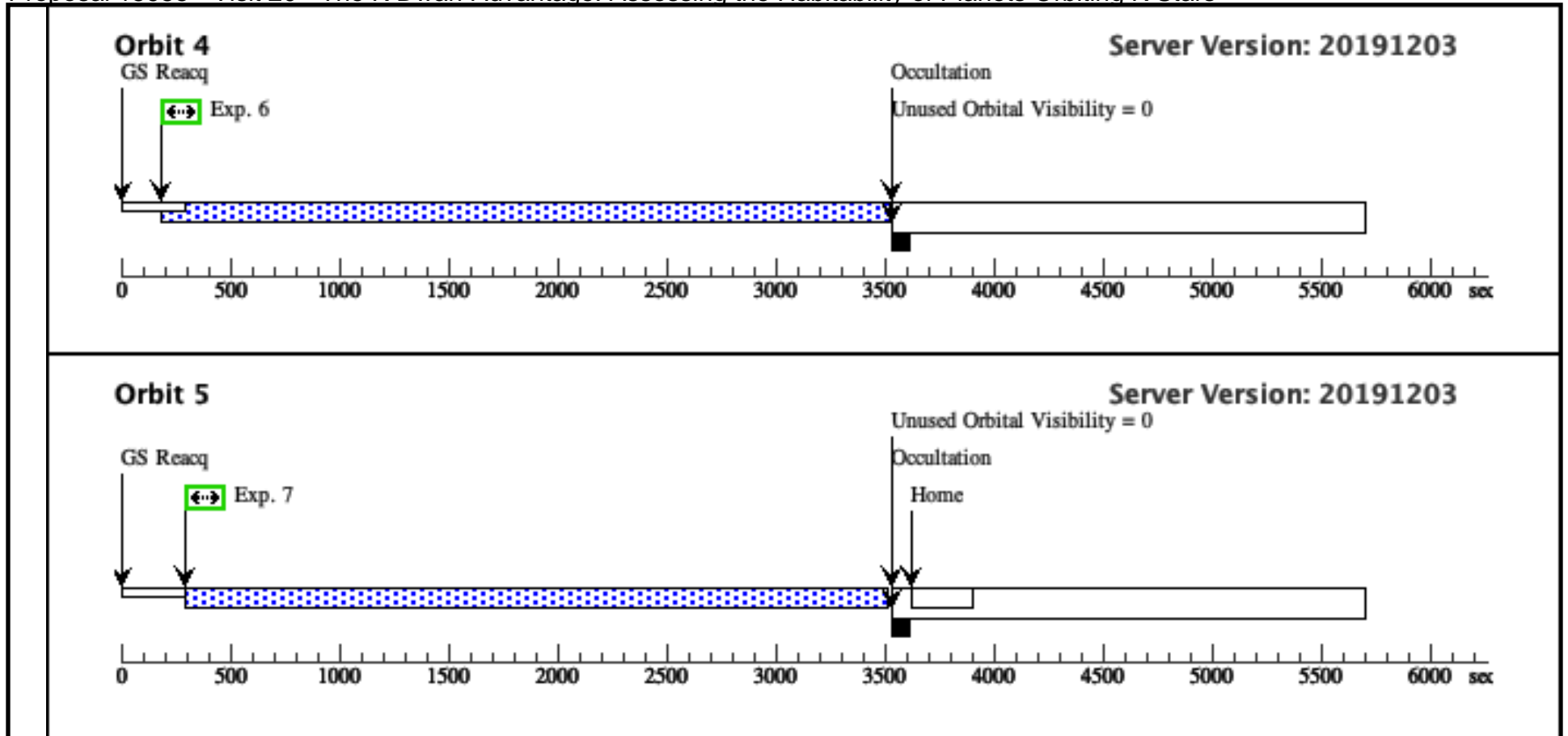


Proposal 15955 - Visit 20 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 20, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(20)	UCAC3-13-31217	RA: 23 58 56.6012 (359.7358383d) Dec: -83 39 42.53 (-83.66181d) Equinox: J2000	Proper Motion RA: 65.783 mas/yr Proper Motion Dec: -39.535 mas/yr Parallax: 0.0179753" Epoch of Position: 2000	V=11.93	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392402)	(20) UCAC3-13-31217	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			262.9 Secs (262.9 Secs) [==>]	[1]
	2	(1392366)	(20) UCAC3-13-31217	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				14.9 Secs (14.9 Secs) [==>]	[1]
	3	(1371442)	(20) UCAC3-13-31217	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 05; FLASH=YES; FP-POS=2			419 Secs (753 Secs) [==>753.0 Secs]	[1]
	4	(1371442)	(20) UCAC3-13-31217	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=16 05; FLASH=YES; FP-POS=3			419 Secs (753 Secs) [==>753.0 Secs]	[1]
	5	(1371772)	(20) UCAC3-13-31217	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			1026 Secs (6122 Secs) [==>1530.0 Secs (Split 1)] [==>1530.0 Secs (Split 2)] [==>1531.0 Secs (Split 3)] [==>1531.0 Secs (Split 4)]	[2] [3]
	6	(1371931)	(20) UCAC3-13-31217	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=44 11; FLASH=YES; FP-POS=3			2949 Secs (3166 Secs) [==>3166.0 Secs]	[4]
	7	(1371931)	(20) UCAC3-13-31217	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=44 11; FLASH=YES; FP-POS=4			2949 Secs (3168 Secs) [==>3168.0 Secs]	[5]

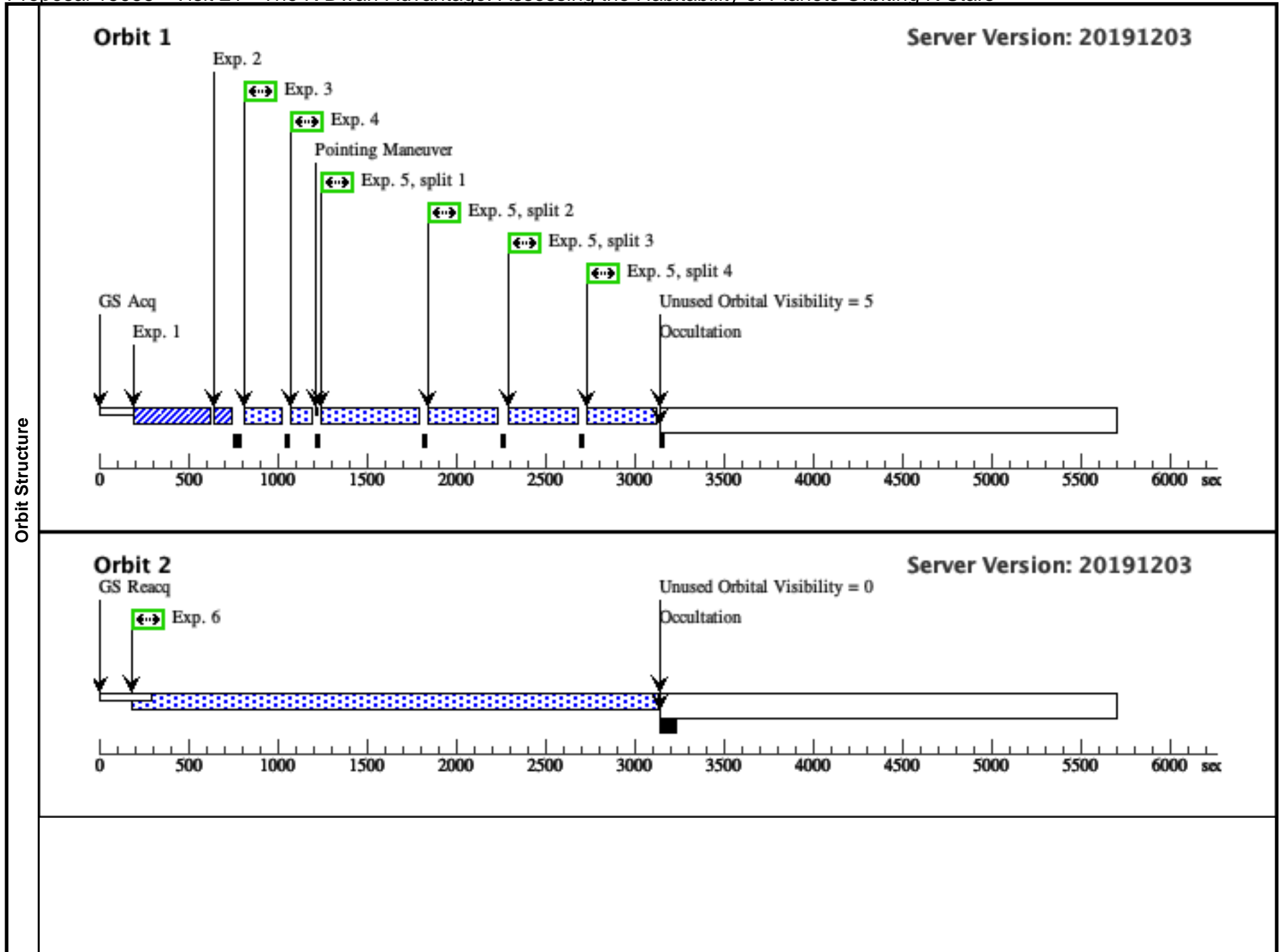


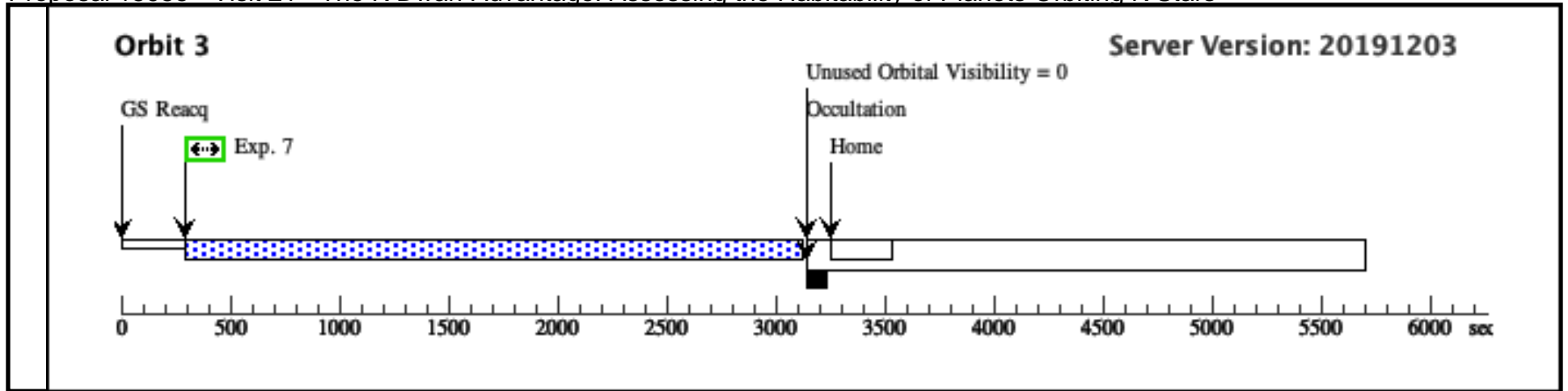


Proposal 15955 - Visit 21 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 21, completed Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(21)	BD+07-499	RA: 03 20 29.1951 (50.1216463d) Dec: +08 27 16.02 (8.45445d) Equinox: J2000		V=9.63	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392403)	(21) BD+07-499	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			22.1 Secs (22.1 Secs) [==>]	[1]
	2	(1392367)	(21) BD+07-499	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				3.2 Secs (3.2 Secs) [==>]	[1]
	3	(1371443)	(21) BD+07-499	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=13 11; FLASH=YES; FP-POS=2			88 Secs (103 Secs) [==>103.0 Secs]	[1]
	4	(1371443)	(21) BD+07-499	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=13 11; FLASH=YES; FP-POS=3			88 Secs (103 Secs) [==>103.0 Secs]	[1]
	5	(1371773)	(21) BD+07-499	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			323 Secs (1352 Secs) [==>338.0 Secs (Split 1)] [==>338.0 Secs (Split 2)] [==>338.0 Secs (Split 3)] [==>338.0 Secs (Split 4)]	[1]
	6	(1371932)	(21) BD+07-499	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=32 23; FLASH=YES; FP-POS=3			1815 Secs (2777 Secs) [==>2777.0 Secs]	[2]
	7	(1371932)	(21) BD+07-499	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=32 23; FLASH=YES; FP-POS=4			1815 Secs (2779 Secs) [==>2779.0 Secs]	[3]





Proposal 15955 - Visit 52 - The K Dwarf Advantage: Assessing the Habitability of Planets Orbiting K Stars

Thu Feb 13 21:01:12 GMT 2020

Visit	Proposal 15955, Visit 52 Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none) <i>Comments: Copy of failed visit 22.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(22)	BD+16-502-COPY	RA: 03 43 52.5642 (55.9690175d) Dec: +16 40 19.31 (16.67203d) Equinox: J2000	Proper Motion RA: 157.95 mas/yr Proper Motion Dec: -316.326 mas/yr Parallax: .0581097" Epoch of Position: 2000.0	V=9.9	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[K V-IV] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1392390)	(22) BD+16-502-CO PY	COS/NUV, ACQ/SEARCH, PSA	MIRRORB	CENTER=DEF; SCAN-SIZE=2; STEP-SIZE=1.767			110.9 Secs (110.9 Secs) [==>]	[1]
	2	(1392352)	(22) BD+16-502-CO PY	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				9.0 Secs (9 Secs) [==>]	[1]
	3	(1371434)	(22) BD+16-502-CO PY	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 44; FLASH=YES; FP-POS=2			252 Secs (327 Secs) [==>327.0 Secs]	[1]
	4	(1371434)	(22) BD+16-502-CO PY	COS/NUV, TIME-TAG, PSA	G230L 2950 A	BUFFER-TIME=15 44; FLASH=YES; FP-POS=3			252 Secs (327 Secs) [==>327.0 Secs]	[1]
	5	(1371764)	(22) BD+16-502-CO PY	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=20 000; FLASH=YES; FP-POS=ALL			773 Secs (3428 Secs) [==>848.0 Secs (Split 1)] [==>860.0 Secs (Split 2)] [==>860.0 Secs (Split 3)] [==>860.0 Secs (Split 4)]	[1] [2]
	6	(1371916)	(22) BD+16-502-CO PY	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 79; FLASH=YES; FP-POS=3			2207 Secs (2788 Secs) [==>2788.0 Secs]	[3]
	7	(1371916)	(22) BD+16-502-CO PY	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=41 79; FLASH=YES; FP-POS=4			2207 Secs (2790 Secs) [==>2790.0 Secs]	[4]

