15304 - Collecting the Puzzle Pieces: Completing HST's UV+NIR Survey of the TRAPPIST-1 System ahead of JWST

Cycle: 25, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) 2MASS-J23062928-0502285	WFC3/IR	4	23-May-2022 09:00:32.0	yes
02	(1) 2MASS-J23062928-0502285	WFC3/IR	4	23-May-2022 09:00:41.0	yes
03	(1) 2MASS-J23062928-0502285	WFC3/IR	4	23-May-2022 09:00:51.0	yes
04	(1) 2MASS-J23062928-0502285	WFC3/IR	4	23-May-2022 09:00:59.0	yes
07	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	6	23-May-2022 09:01:03.0	yes
31	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	7	23-May-2022 09:01:07.0	yes
32	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	7	23-May-2022 09:01:11.0	yes
33	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	5	23-May-2022 09:01:13.0	yes
16	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:16.0	yes
29	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	6	23-May-2022 09:01:19.0	yes
30	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	6	23-May-2022 09:01:22.0	yes
05	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:24.0	yes

Visit	***Targets used in Visit***	***Configurations used in Visit***	***Orbits Used***	***Last Orbit Planner Run***	***OP Current with Visit?***
08	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:26.0	yes
B1	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:28.0	yes
B2	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:30.0	yes
C1	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:33.0	yes
C2	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:35.0	yes
C3	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:37.0	yes
D1	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:39.0	yes
E1	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:41.0	yes
E2	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:43.0	yes
E3	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:44.0	yes
F1	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:47.0	yes
F2	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:49.0	yes
F3	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:51.0	yes
G1	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:53.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
G2	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:55.0	yes
H1	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:57.0	yes
H2	(1) 2MASS-J23062928-0502285 WAVE	STIS/CCD STIS/FUV-MAMA	4	23-May-2022 09:01:59.0	yes

129 Total Orbits Used

ABSTRACT

Using the Spitzer Space Telescope, our team has discovered 7 Earth-sized planets around the nearby Ultra-cool dwarf star TRAPPIST-1. These planets are the first to be simultaneously Earth-sized, temperate, and amenable for in-depth atmospheric studies with space-based observatories (notably, JWST). TRAPPIST-1's system thus provides us with the first opportunity to probe the atmospheres of Earth-sized exoplanets and search for signs of habitability beyond our solar system, which will require spectral information from the UV to the IR to complete their atmospheric puzzles.

We request 114 HST orbits to complete the UV+NIR survey of the 7 planets in preparation for their in-depth followup with JWST. The suggested low-density of the planets combined with their complex orbital resonance chain indicate that they migrated inward to their current positions and may harbor large water rich reservoir or leftover primordial H2 atmospheres. We have already ruled out the presence of clear H2 atmospheres for the 5 innermost planets using WFC3 and are requesting 16 WFC3 orbits to complete the TRAPPIST-1 NIR reconnaissance survey. Our primary request consists in 98 STIS orbits to complete the survey for extended H-exospheres around each of the planets. H-exospheres are the most accessible observables for volatile reservoirs, which have not been ruled out by our WFC3 observations. Exosphere detection is only amenable using HST unique capabilities in the UV and are pivotal to guide JWST's in-depth followup. The combined information from HST's UV and NIR observations will allow us put the first critical pieces of the atmospheric puzzle in place for these temperate earth-sized worlds.

OBSERVING DESCRIPTION

This program will observe two transits of each TRAPPIST-1 planets with STIS (in LY-a) to search for signs of exospheres while acquiring extra baseline measurements to monitor the star's activity.

In addition, 16 WFC3 orbits to complete the TRAPPIST-1 NIR reconnaissance survey that has already ruled out the presence of clear H2 atmospheres for the 5 innermost planets.

Visit

Proposal 15304, WFC3 transit of g (3) (01), completed — Mon May 23 13:02:00 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SCHED 100%; Period 12.35351378 D AND ZERO-PHASE HJD2457665.257828620

Diagnostics

(WFC3 transit of g (3) (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WFC3 transit of g (3) (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WFC3 transit of g (3) (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WFC3 transit of g (3) (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

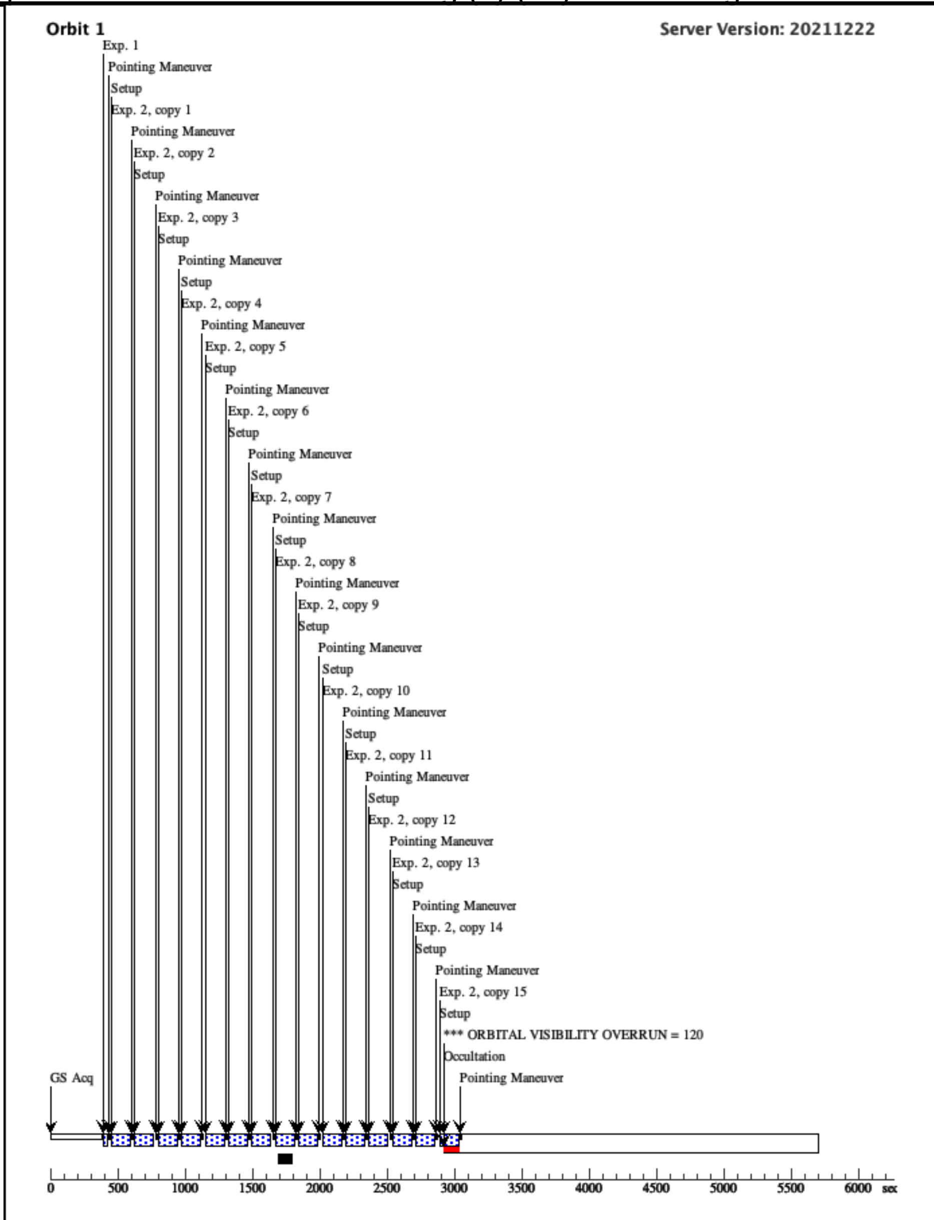
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	F139M	NSAMP=10; SAMP-SEQ=RAPID	PHASE 0 TO 0.0014		2.77815 Secs (2.778 Secs)	
								[==>]	*[1]*

	2	(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	112.00801 Secs X 60 (6720.481 Secs)	
							[==>(Copy 1)] *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]* *[==>(Copy 14)]* *[==>(Copy 15)]*	***[1]***
							[==>(Copy 16)] *[==>(Copy 17)]* *[==>(Copy 18)]* *[==>(Copy 19)]* *[==>(Copy 20)]* *[==>(Copy 21)]* *[==>(Copy 22)]* *[==>(Copy 23)]* *[==>(Copy 24)]* *[==>(Copy 25)]* *[==>(Copy 26)]* *[==>(Copy 27)]* *[==>(Copy 28)]* *[==>(Copy 29)]* *[==>(Copy 30)]*	***[2]***

		[==>(Copy 31)] *[==>(Copy 32)]* *[==>(Copy 33)]* *[==>(Copy 34)]* *[==>(Copy 35)]* *[==>(Copy 36)]* *[==>(Copy 37)]* *[==>(Copy 38)]* *[==>(Copy 39)]* *[==>(Copy 40)]* *[==>(Copy 41)]* *[==>(Copy 42)]* *[==>(Copy 43)]* *[==>(Copy 44)]* *[==>(Copy 45)]*	***[3]***
		[==>(Copy 46)] *[==>(Copy 47)]* *[==>(Copy 48)]* *[==>(Copy 49)]* *[==>(Copy 50)]* *[==>(Copy 51)]* *[==>(Copy 52)]* *[==>(Copy 53)]* *[==>(Copy 54)]* *[==>(Copy 55)]* *[==>(Copy 56)]* *[==>(Copy 57)]* *[==>(Copy 58)]* *[==>(Copy 59)]* *[==>(Copy 60)]*	***[4]***

Orbit Structure



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Exp. 2, copy 28
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Exp. 2, copy 29
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Pointing Maneuver
Exp. 2, copy 30
Setup
*** ORBITAL VISIBILITY OVERRUN = 57
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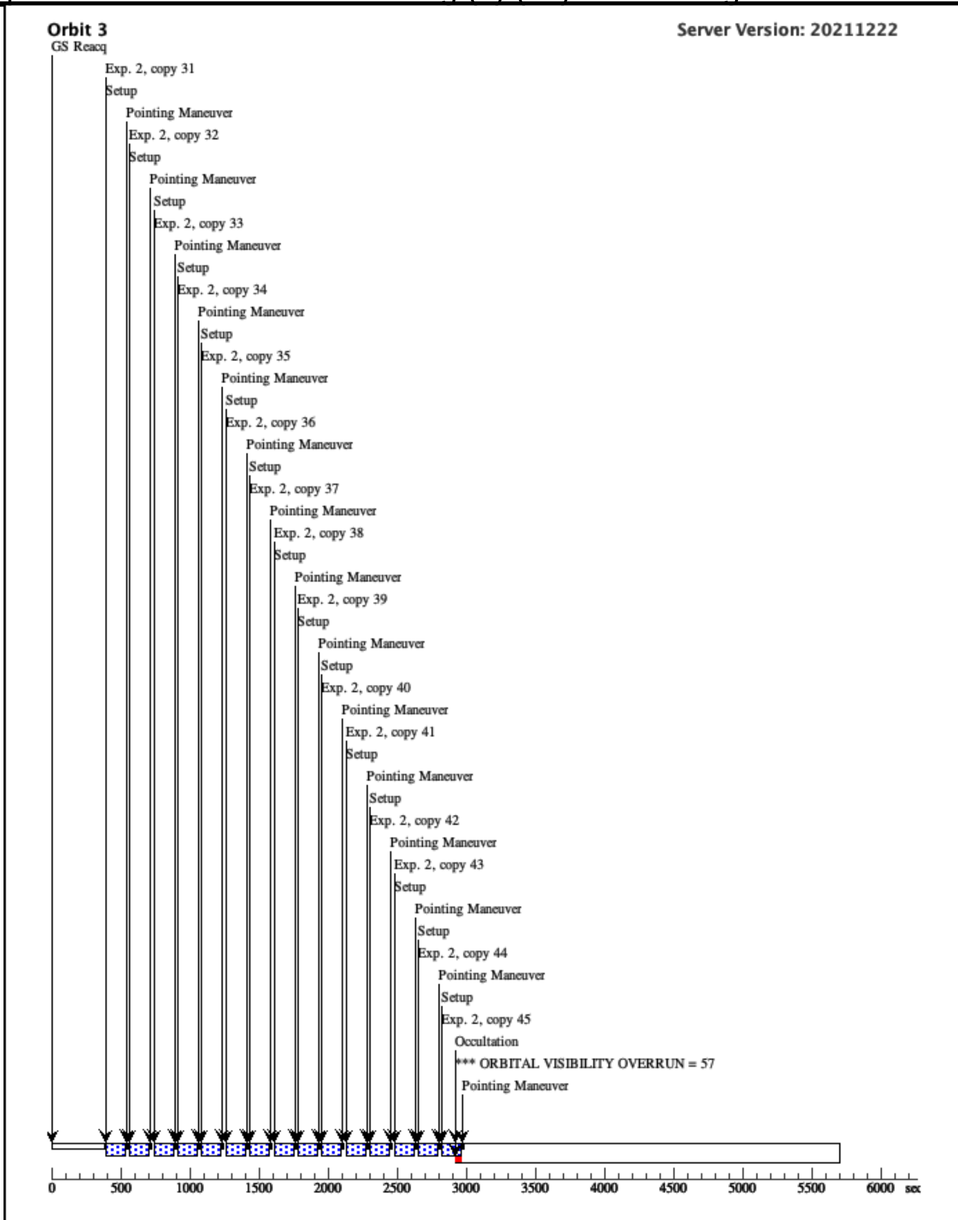
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Exp. 2, copy 43
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Exp. 2, copy 44
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Setup
Exp. 2, copy 45
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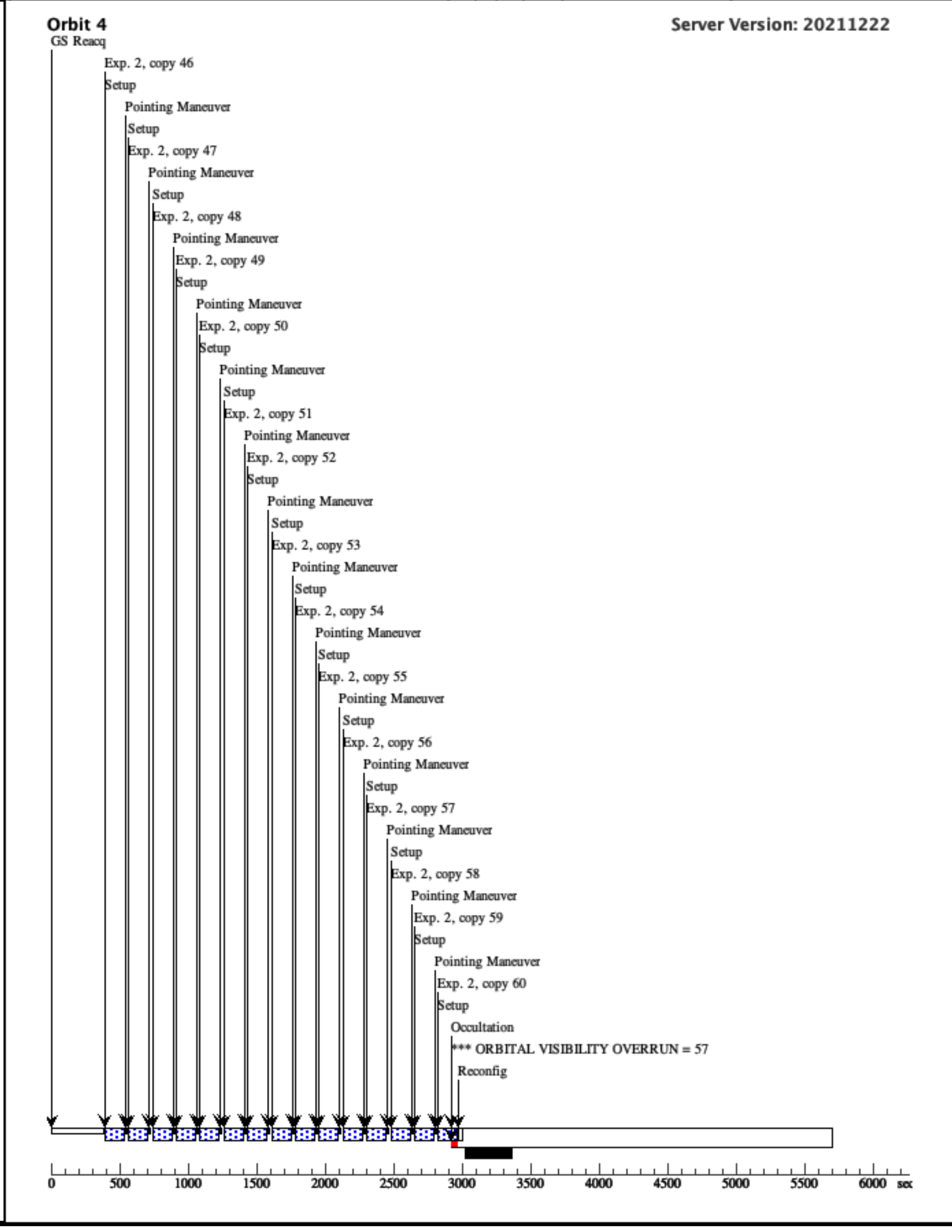

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Exp. 2, copy 48
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Exp. 2, copy 59
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Exp. 2, copy 60
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Occultation
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Visit

Proposal 15304, WFC3 transit of h (1) (02), completed Mon May 23 13:02:00 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: SCHED 100%; Period 18.76745243 D AND ZERO-PHASE HJD2457662.459224910

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
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Description=[EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	F139M	NSAMP=10; SAMP-SEQ=RAPID	PHASE 0 TO 0.0011 ; GS ACQ SCENARIO PAIR	Sequence 1-2 Non-Int in WFC3 transit of h (1) (02)	2.77815 Secs (2.778 Secs) *[==>]*	*[1]*
2		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 1-2 Non-Int in WFC3 transit of h (1) (02)	112.00801 Secs X 12 (1344.096 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]*	*[1]*
3		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 3-3 Non-Int in WFC3 transit of h (1) (02)	112.00801 Secs X 13 (1456.104 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]*	*[2]*

	4	(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 4-4 Non-Int in WFC3 transit of h (1) (02)	112.00801 Secs X 13 (1456.104 Secs)	
								[==>(Copy 1)] *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]*	***[3]***
	5	(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 5-5 Non-Int in WFC3 transit of h (1) (02)	112.00801 Secs X 13 (1456.104 Secs)	
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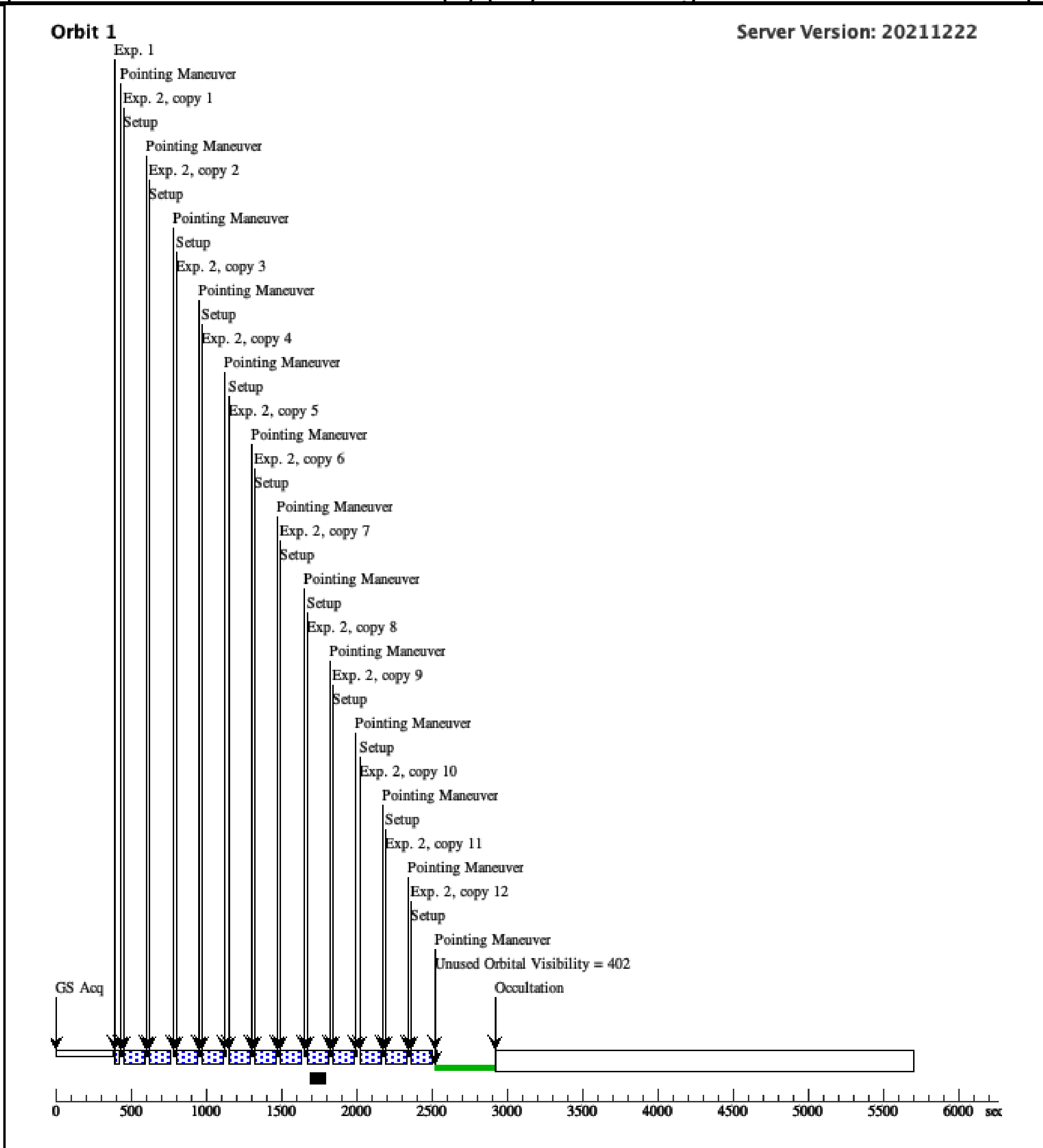
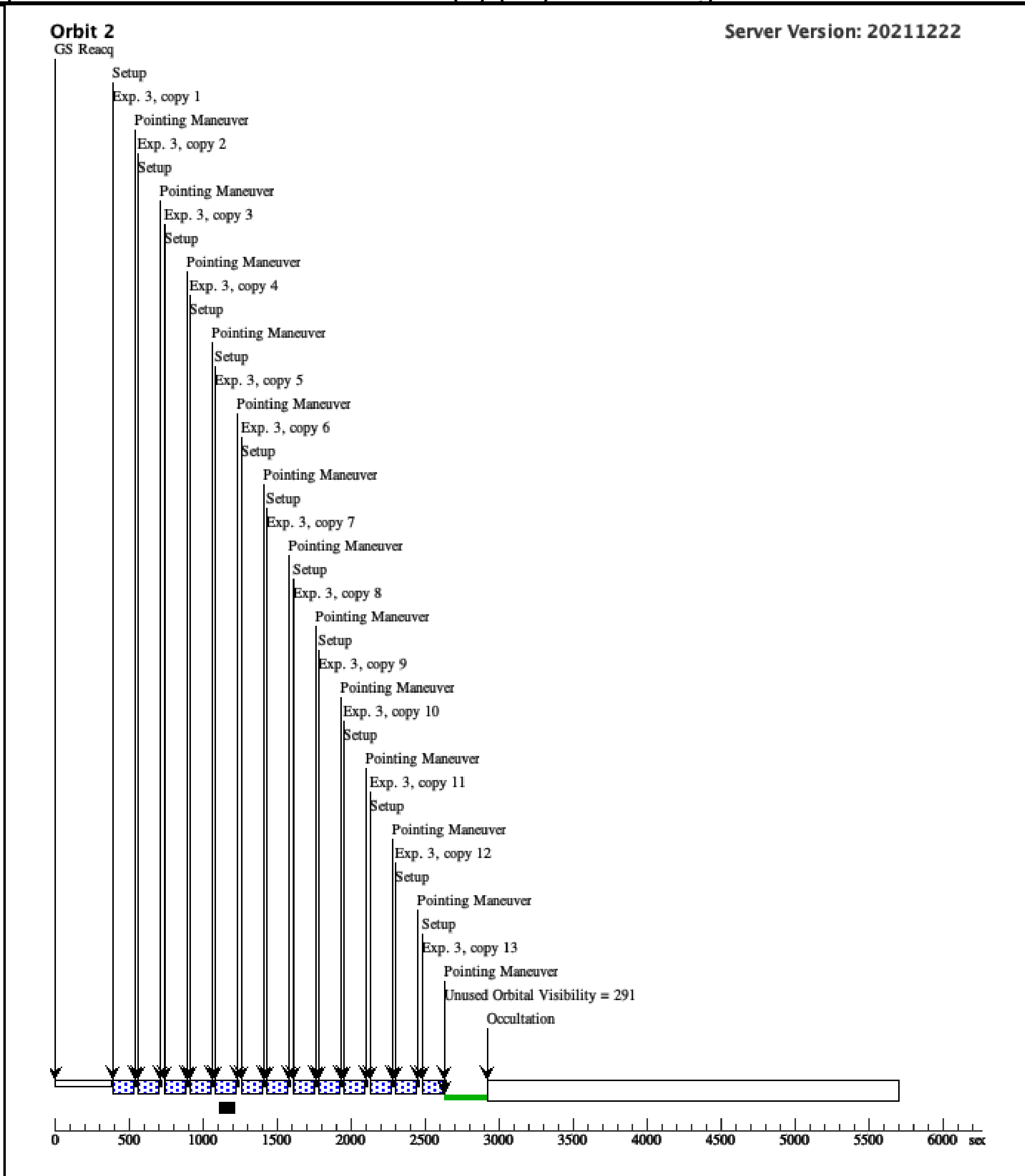
Orbit Structure

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Pointing Maneuver
Exp. 3, copy 12
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Pointing Maneuver
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Pointing Maneuver
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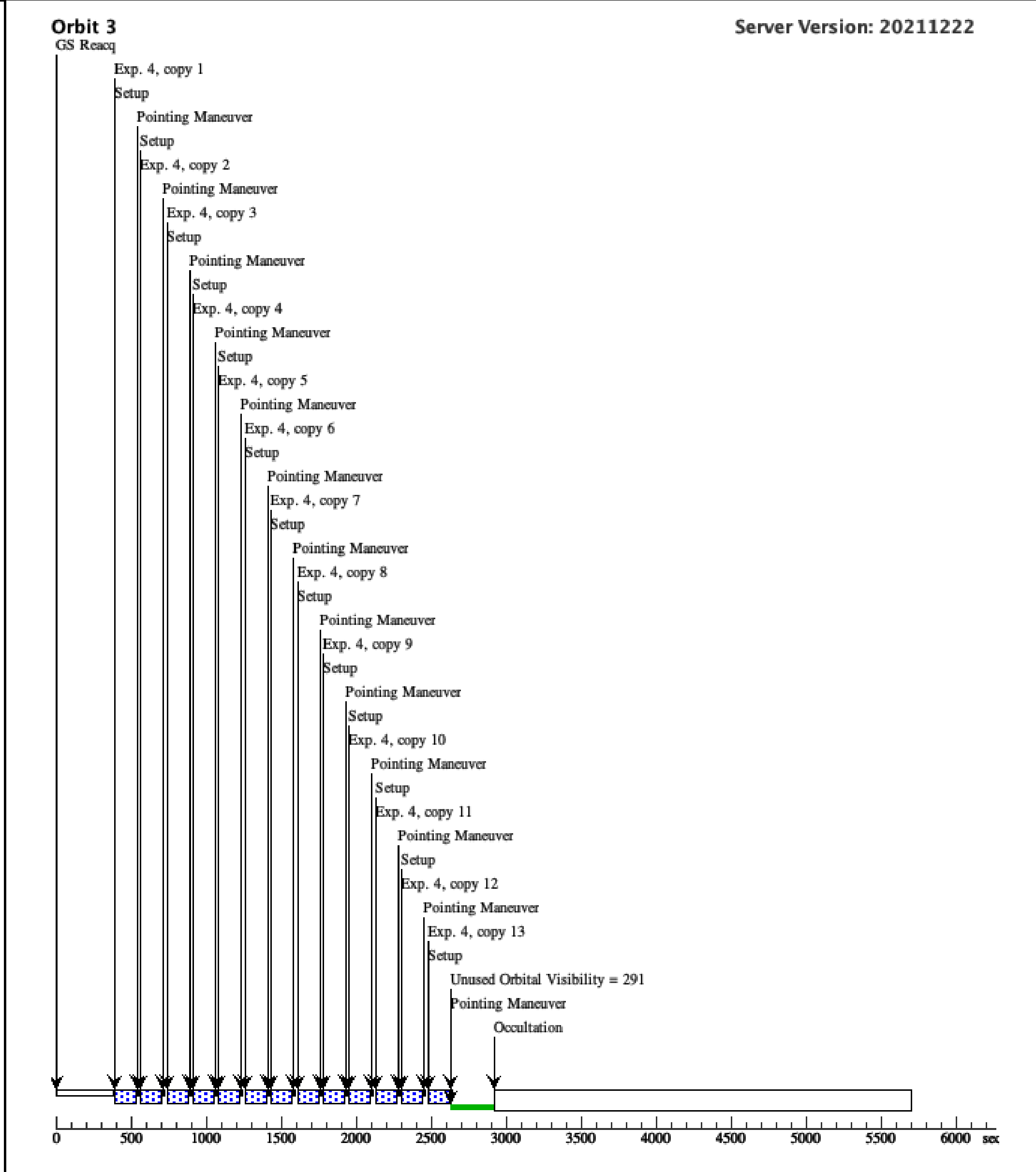
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Pointing Maneuver
Occultation
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3500
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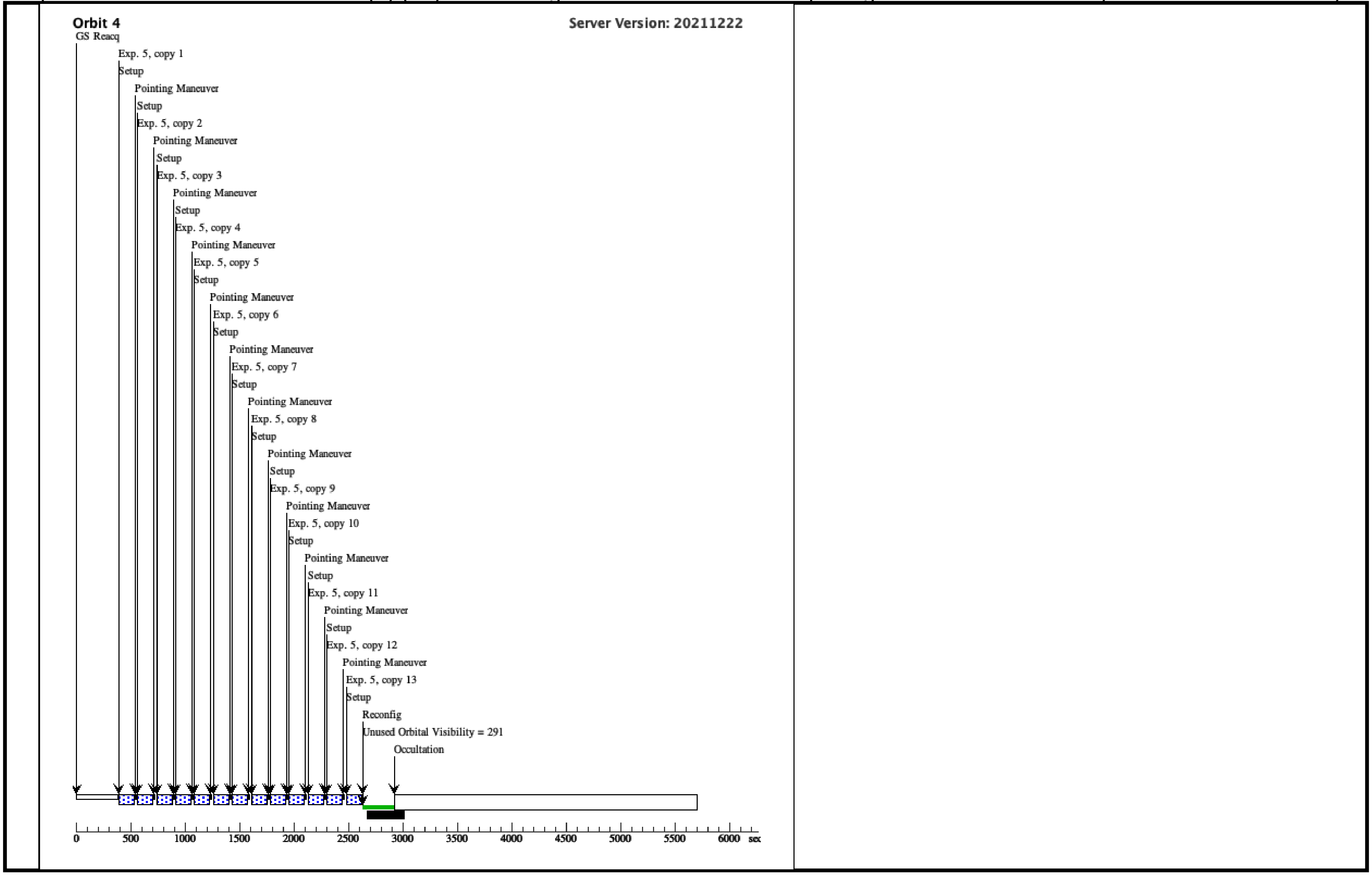
6000
sec


Orbit 4
Server Version: 20211222
GS Reacq
Exp. 5, copy 1
Setup
Pointing Maneuver
Setup
Exp. 5, copy 2
Pointing Maneuver
Setup
Exp. 5, copy 3
Pointing Maneuver
Setup
Exp. 5, copy 4
Pointing Maneuver
Exp. 5, copy 5
Setup
Pointing Maneuver
Exp. 5, copy 6
Setup
Pointing Maneuver
Exp. 5, copy 7
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Pointing Maneuver
Exp. 5, copy 8
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Pointing Maneuver
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Exp. 5, copy 9
Pointing Maneuver
Exp. 5, copy 10
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Pointing Maneuver
Setup
Exp. 5, copy 11
Pointing Maneuver
Setup
Exp. 5, copy 12
Pointing Maneuver
Exp. 5, copy 13
Setup
Reconfig
Unused Orbital Visibility = 291
Occultation
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, WFC3 transit of h (2) (03), completed Mon May 23 13:02:01 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SCHED 100%; BETWEEN 2018.200:18:00:00 AND 2018.200:19:00:00

Diagnostics

(WFC3 transit of h (2) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WFC3 transit of h (2) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WFC3 transit of h (2) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WFC3 transit of h (2) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(WFC3 transit of h (2) (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

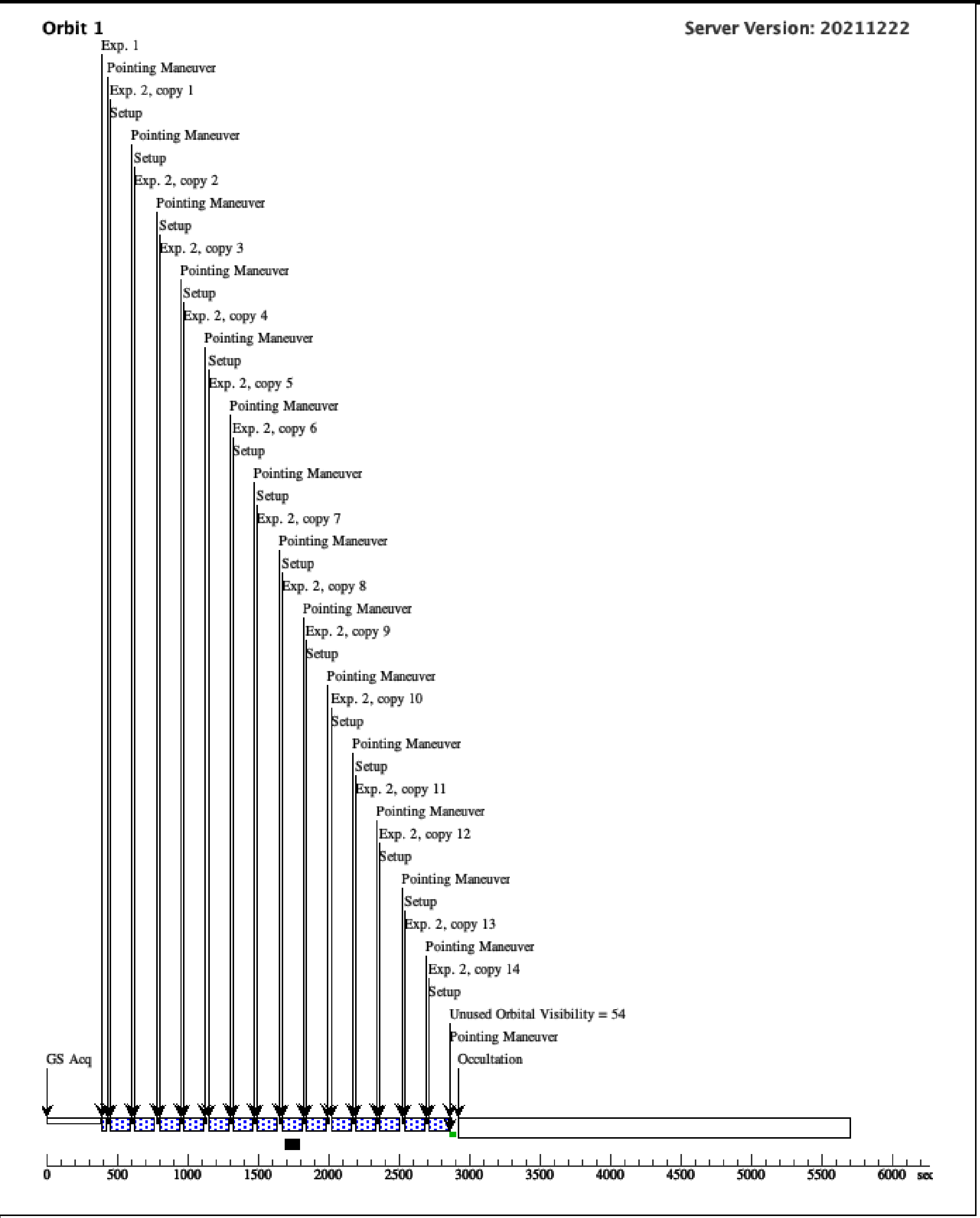
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

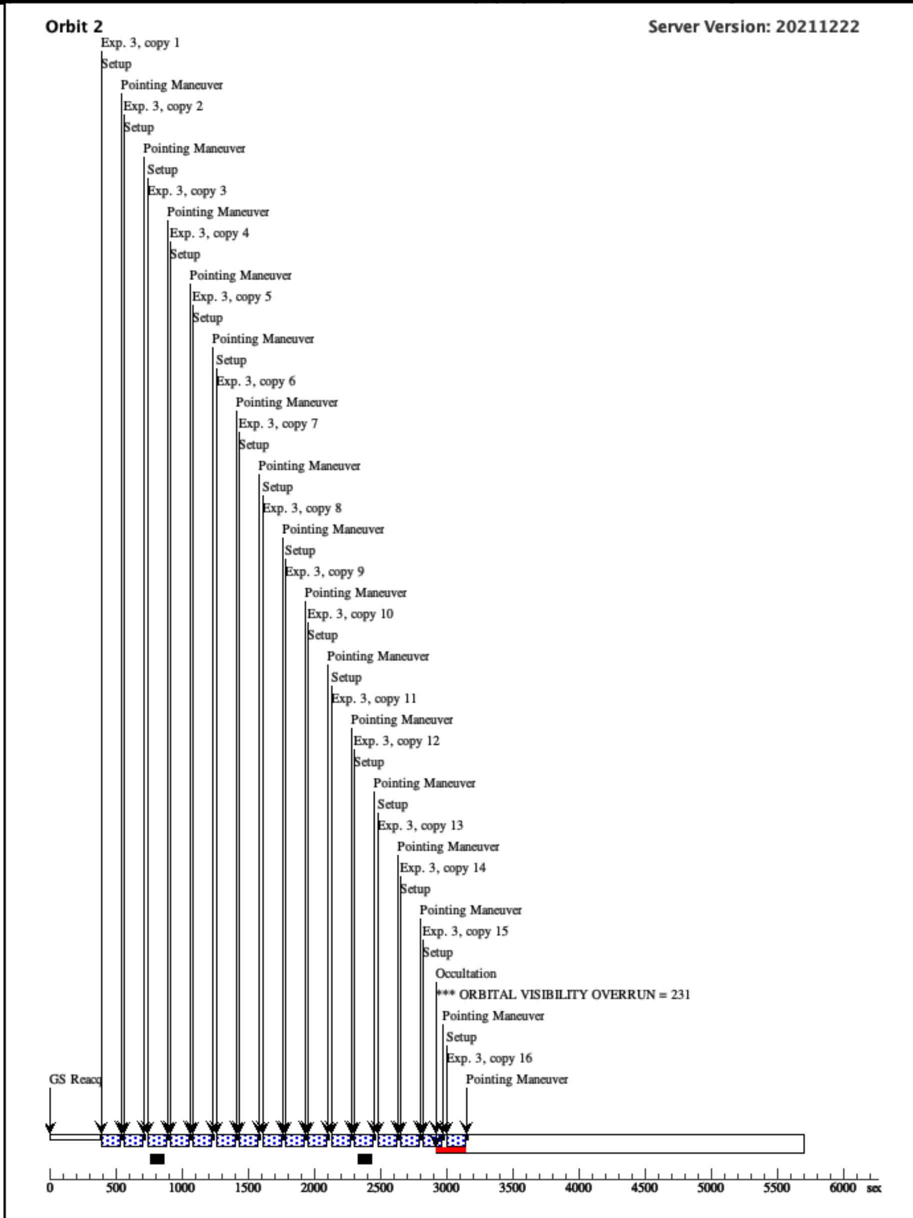
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	F139M	NSAMP=10; SAMP-SEQ=RAPID		Sequence 1-2 Non-Int in WFC3 transit of h (2) (03)	2.77815 Secs (2.778 Secs) *[==>]*	*[1]*
2		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 1-2 Non-Int in WFC3 transit of h (2) (03)	112.00801 Secs X 14 (1568.112 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]* *[==>(Copy 14)]*	*[1]*
3		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 3-3 Non-Int in WFC3 transit of h (2) (03)	112.00801 Secs X 16 (1792.128 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]* *[==>(Copy 14)]* *[==>(Copy 15)]* *[==>(Copy 16)]*	*[2]*

	4	(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 4-4 Non-Int in WFC3 transit of h (2) (03)	112.00801 Secs X 16 (1792.128 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]* *[==>(Copy 14)]* *[==>(Copy 15)]* *[==>(Copy 16)]*	***[3]***
	5	(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 5-5 Non-Int in WFC3 transit of h (2) (03)	112.00801 Secs X 15 (1680.12 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]* *[==>(Copy 14)]* *[==>(Copy 15)]*	***[4]***

Orbit Structure





Orbit 2
Server Version: 20211222
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Pointing Maneuver
Exp. 3, copy 2
Setup
Pointing Maneuver
Setup
Exp. 3, copy 3
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Pointing Maneuver
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Pointing Maneuver
Exp. 3, copy 12
Setup
Pointing Maneuver
Setup
Exp. 3, copy 13
Pointing Maneuver
Exp. 3, copy 14
Setup
Pointing Maneuver
Exp. 3, copy 15
Setup
Occultation
*** ORBITAL VISIBILITY OVERRUN = 231
Pointing Maneuver
Setup
Exp. 3, copy 16
Pointing Maneuver
GS Reacq
0
500
1000
1500
2000
2500
3000
3500
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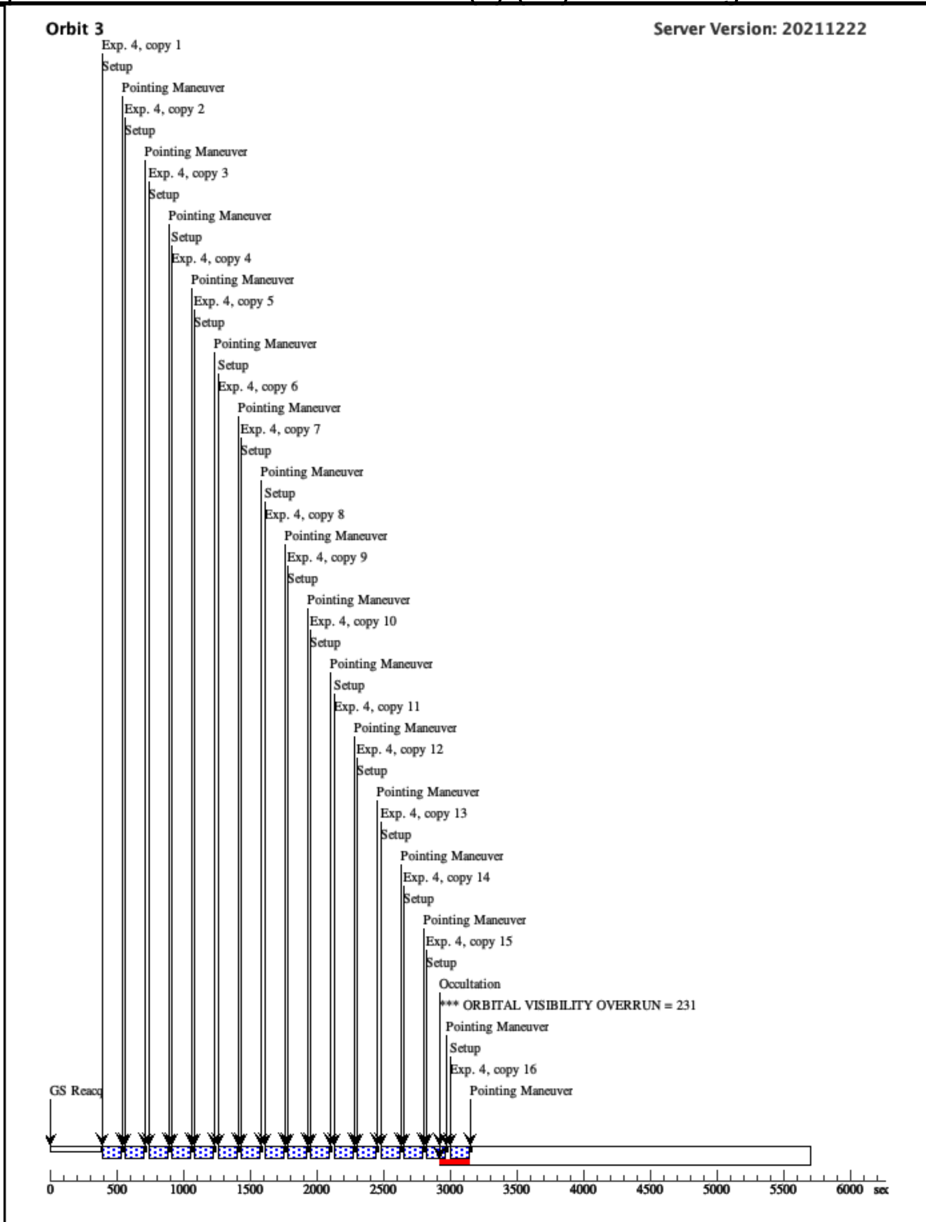
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20211222
Exp. 4, copy 1
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Pointing Maneuver
Exp. 4, copy 2
Setup
Pointing Maneuver
Exp. 4, copy 3
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Setup
Exp. 4, copy 4
Pointing Maneuver
Exp. 4, copy 5
Setup
Pointing Maneuver
Setup
Exp. 4, copy 6
Pointing Maneuver
Exp. 4, copy 7
Setup
Pointing Maneuver
Setup
Exp. 4, copy 8
Pointing Maneuver
Exp. 4, copy 9
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Pointing Maneuver
Exp. 4, copy 10
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Pointing Maneuver
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Exp. 4, copy 12
Setup
Pointing Maneuver
Exp. 4, copy 13
Setup
Pointing Maneuver
Exp. 4, copy 14
Setup
Pointing Maneuver
Exp. 4, copy 15
Setup
Occultation
*** ORBITAL VISIBILITY OVERRUN = 231
Pointing Maneuver
Setup
Exp. 4, copy 16
Pointing Maneuver
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1000
1500
2000
2500
3000
3500
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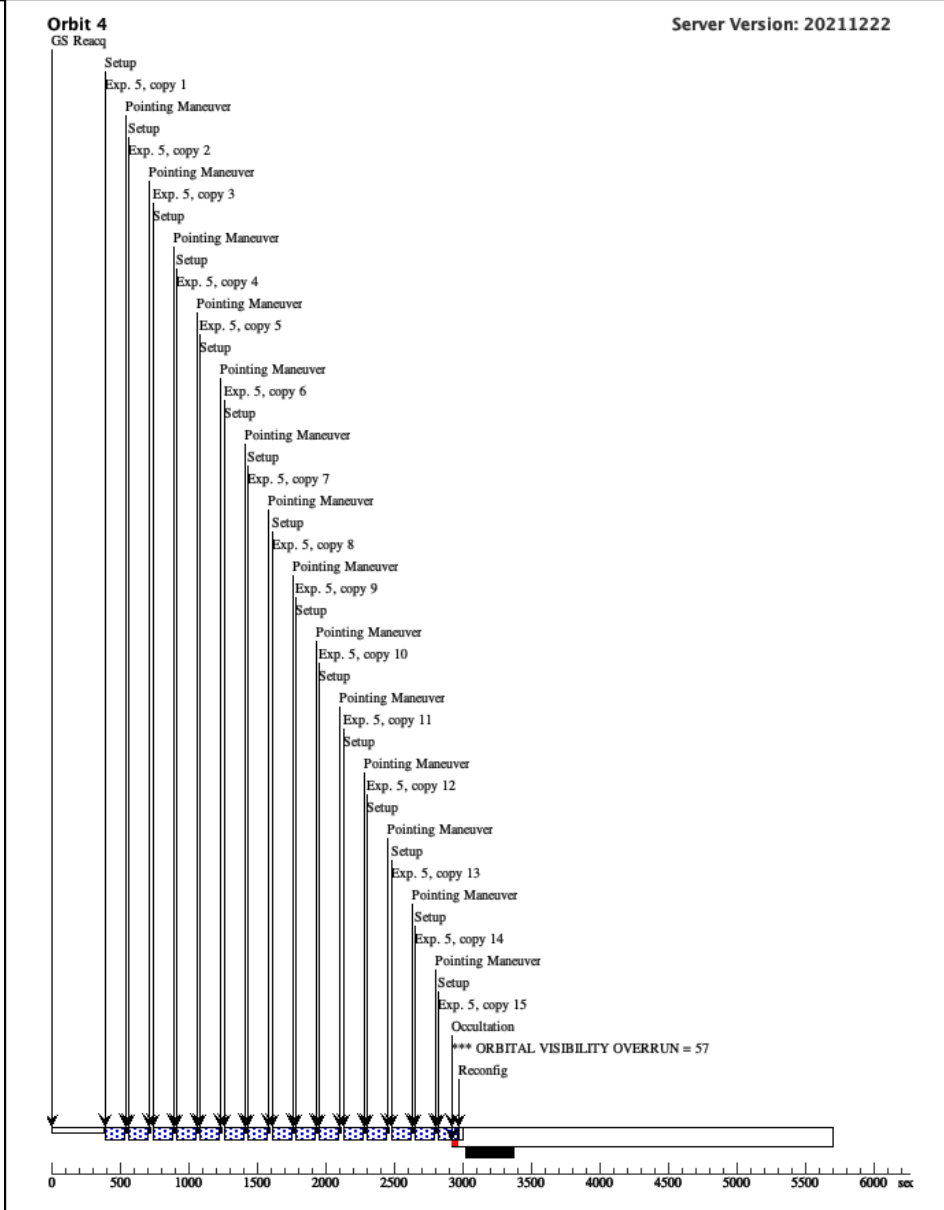
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
GS Reacq
Setup
Exp. 5, copy 1
Pointing Maneuver
Setup
Exp. 5, copy 2
Pointing Maneuver
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Exp. 5, copy 4
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Exp. 5, copy 5
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Pointing Maneuver
Exp. 5, copy 6
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Exp. 5, copy 7
Pointing Maneuver
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Exp. 5, copy 8
Pointing Maneuver
Exp. 5, copy 9
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Pointing Maneuver
Exp. 5, copy 10
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Pointing Maneuver
Exp. 5, copy 11
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Pointing Maneuver
Exp. 5, copy 12
Setup
Pointing Maneuver
Setup
Exp. 5, copy 13
Pointing Maneuver
Setup
Exp. 5, copy 14
Pointing Maneuver
Setup
Exp. 5, copy 15
Occultation
*** ORBITAL VISIBILITY OVERRUN = 57
Reconfig
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, WFC3 transit of h (3) (04), completed Mon May 23 13:02:01 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: SCHED 100%; Period 18.76745243 D AND ZERO-PHASE HJD2457662.459224910

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

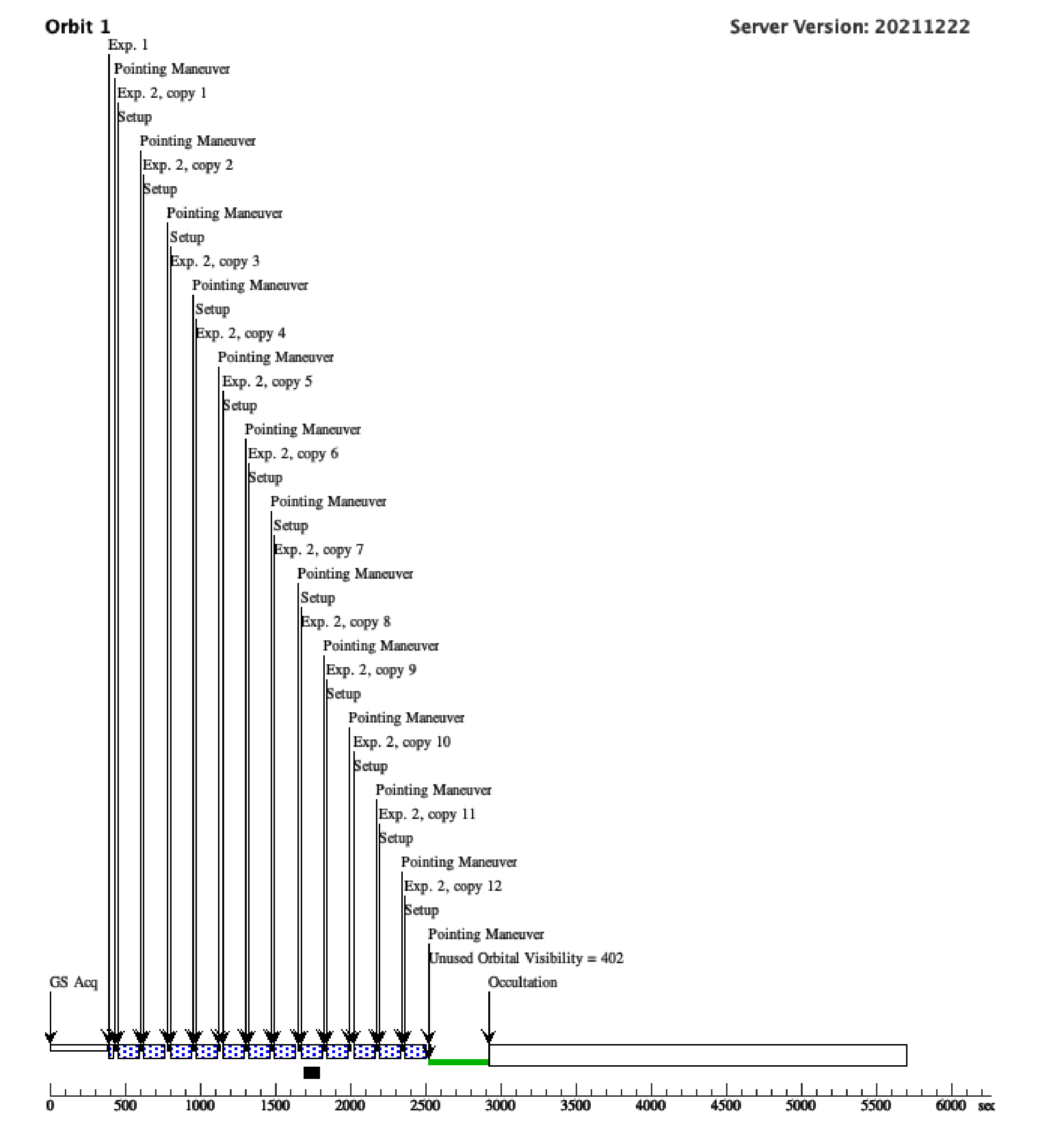
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

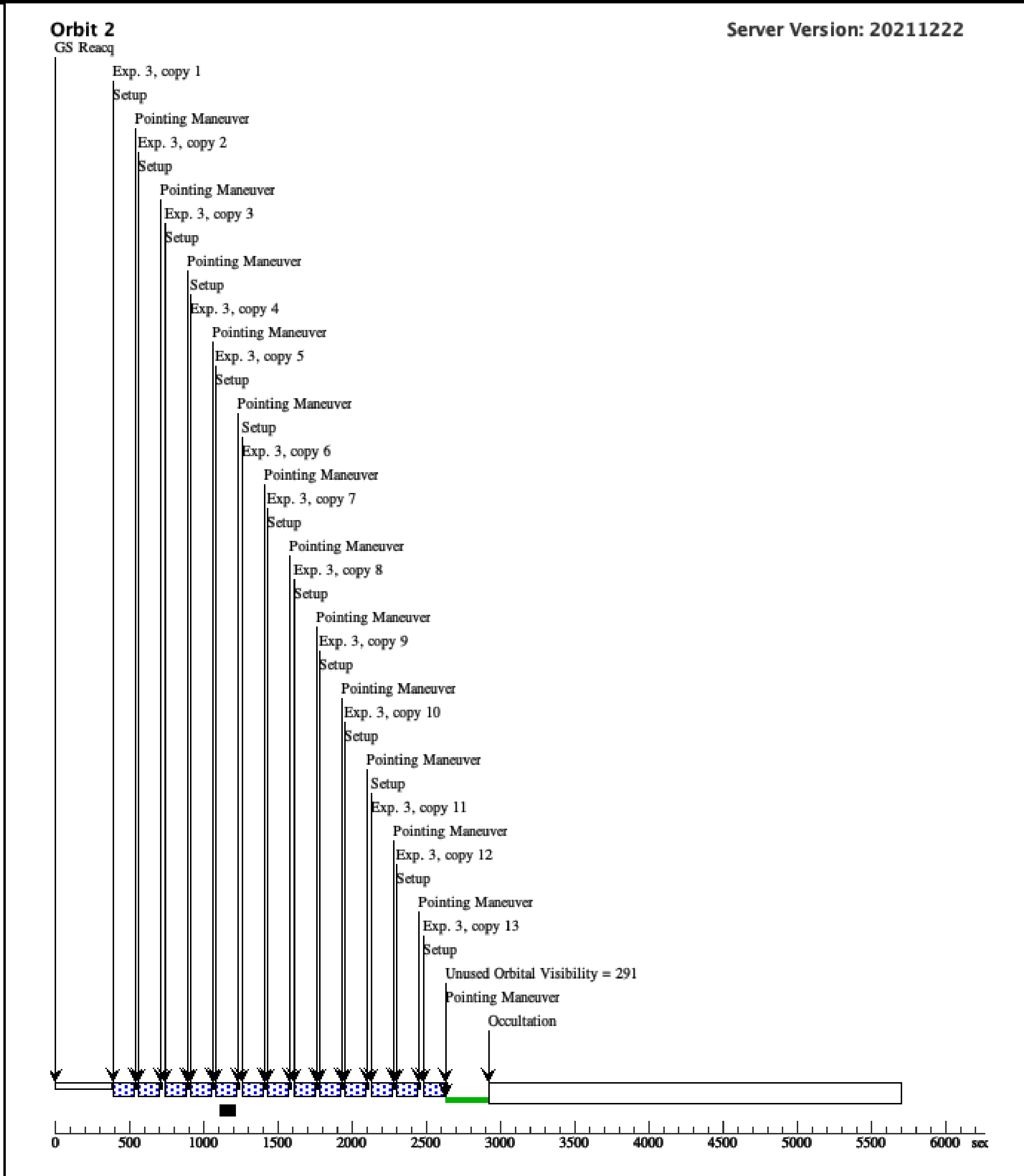
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	F139M	NSAMP=10; SAMP-SEQ=RAPID	PHASE 0 TO 0.0011 ; GS ACQ SCENARIO PAIR	Sequence 1-2 Non-Int in WFC3 transit of h (3) (04)	2.77815 Secs (2.778 Secs) *[==>]*	*[1]*
2		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 1-2 Non-Int in WFC3 transit of h (3) (04)	112.00801 Secs X 12 (1344.096 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]*	*[1]*
3		(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 3-3 Non-Int in WFC3 transit of h (3) (04)	112.00801 Secs X 13 (1456.104 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]*	*[2]*

	4	(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 4-4 Non-Int in WFC3 transit of h (3) (04)	112.00801 Secs X 13 (1456.104 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]*	***[3]***
	5	(1) 2MASS-J23062928-0502285	WFC3/IR, MULTIACCUM, GRISM256	G141	NSAMP=6; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.02,90.0 Degrees,Forward	Sequence 5-5 Non-Int in WFC3 transit of h (3) (04)	112.00801 Secs X 13 (1456.104 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]* *[==>(Copy 3)]* *[==>(Copy 4)]* *[==>(Copy 5)]* *[==>(Copy 6)]* *[==>(Copy 7)]* *[==>(Copy 8)]* *[==>(Copy 9)]* *[==>(Copy 10)]* *[==>(Copy 11)]* *[==>(Copy 12)]* *[==>(Copy 13)]*	***[4]***

Orbit Structure





Orbit 2
Server Version: 20211222
GS Reacq
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Pointing Maneuver
Exp. 3, copy 2
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Pointing Maneuver
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Exp. 3, copy 10
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Pointing Maneuver
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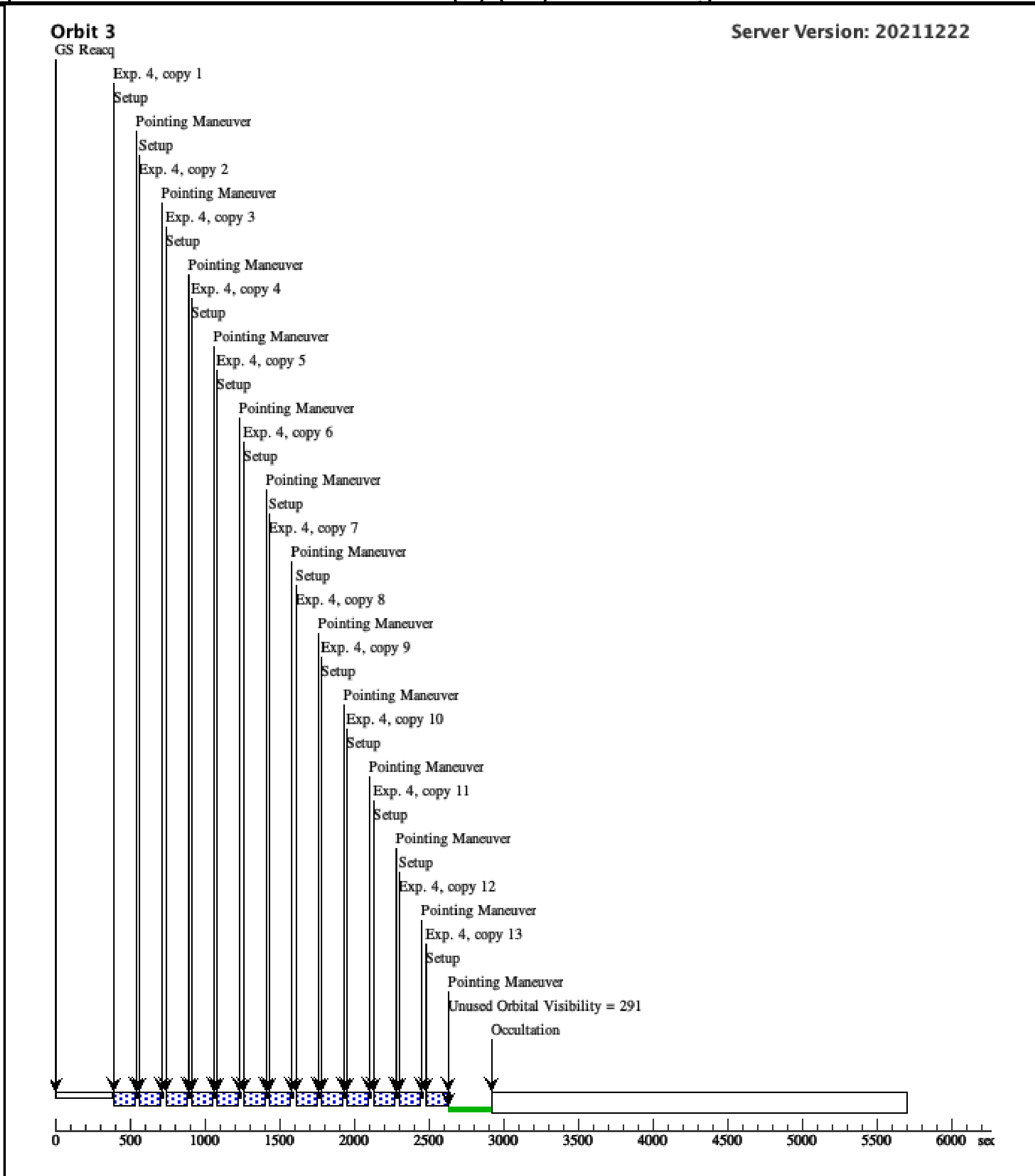
Exp. 3, copy 11
Pointing Maneuver
Exp. 3, copy 12
Setup
Pointing Maneuver
Exp. 3, copy 13
Setup
Unused Orbital Visibility = 291
Pointing Maneuver
Occultation
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec



Orbit 3
Server Version: 20211222
GS Reacq
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Pointing Maneuver
Setup
Exp. 4, copy 2
Pointing Maneuver
Exp. 4, copy 3
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Pointing Maneuver
Exp. 4, copy 4
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Pointing Maneuver
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Exp. 4, copy 11
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Exp. 4, copy 12
Pointing Maneuver
Exp. 4, copy 13
Setup
Pointing Maneuver
Unused Orbital Visibility = 291
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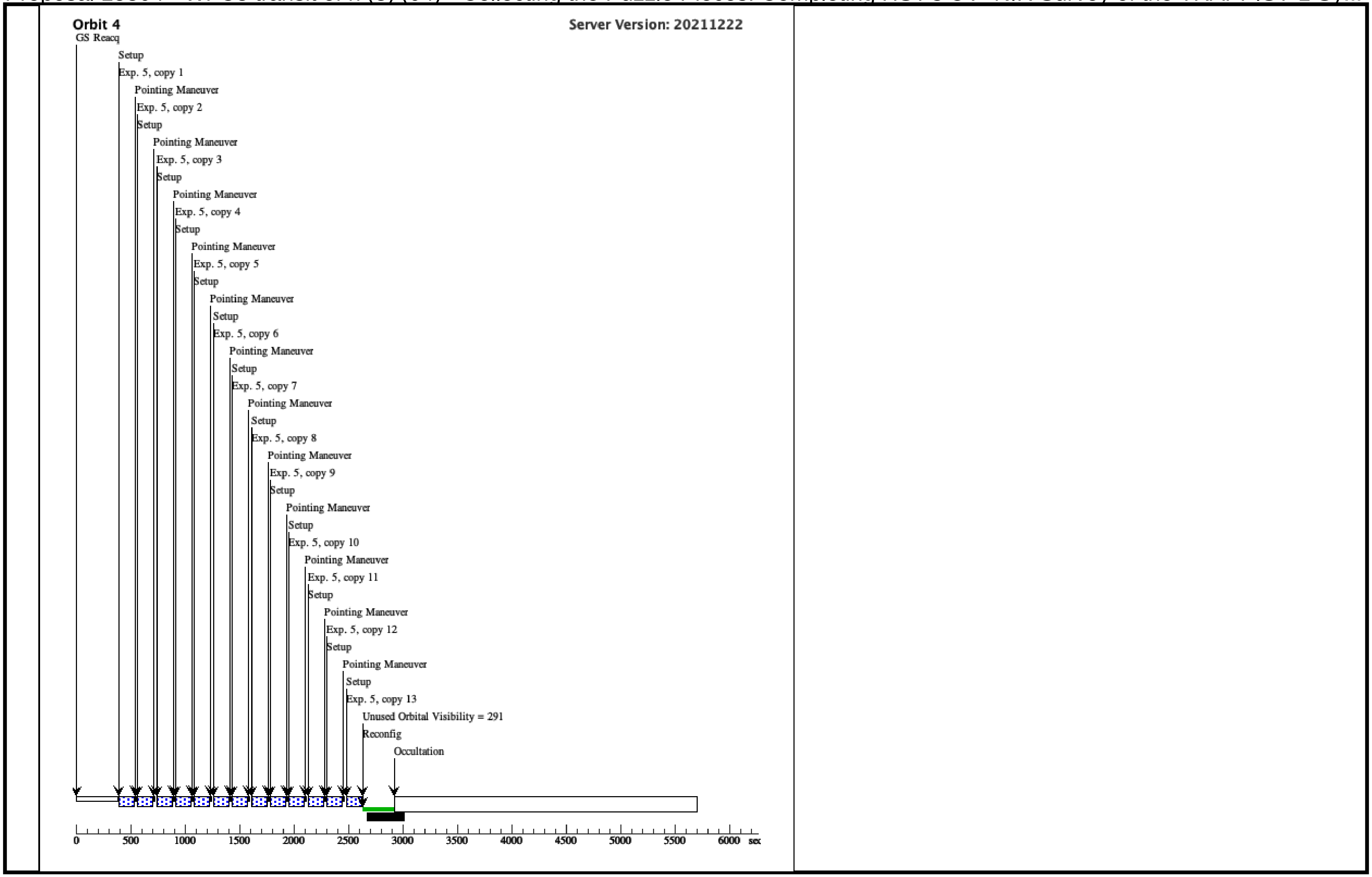
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
GS Reacq
Setup
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Pointing Maneuver
Exp. 5, copy 2
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Exp. 5, copy 11
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Exp. 5, copy 12
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Pointing Maneuver
Setup
Exp. 5, copy 13
Unused Orbital Visibility = 291
Reconfig
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS Sep 03 (07), completed Mon May 23 13:02:01 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 03-SEP-2017:17:00:00 AND 03-SEP-2017:19:15:00

Diagnostics

(STIS Sep 03 (07)) Warning (Orbit Planner): LONG STIS MAMA SU LIKELY TO INTERSECT THE SAA
(STIS Sep 03 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 03 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 03 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 03 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 03 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

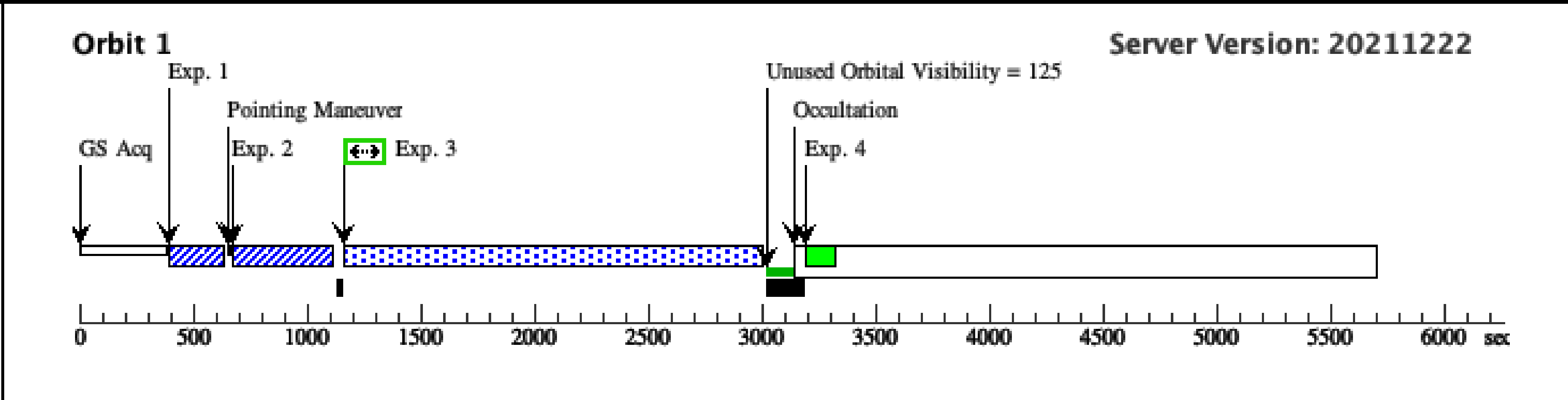
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

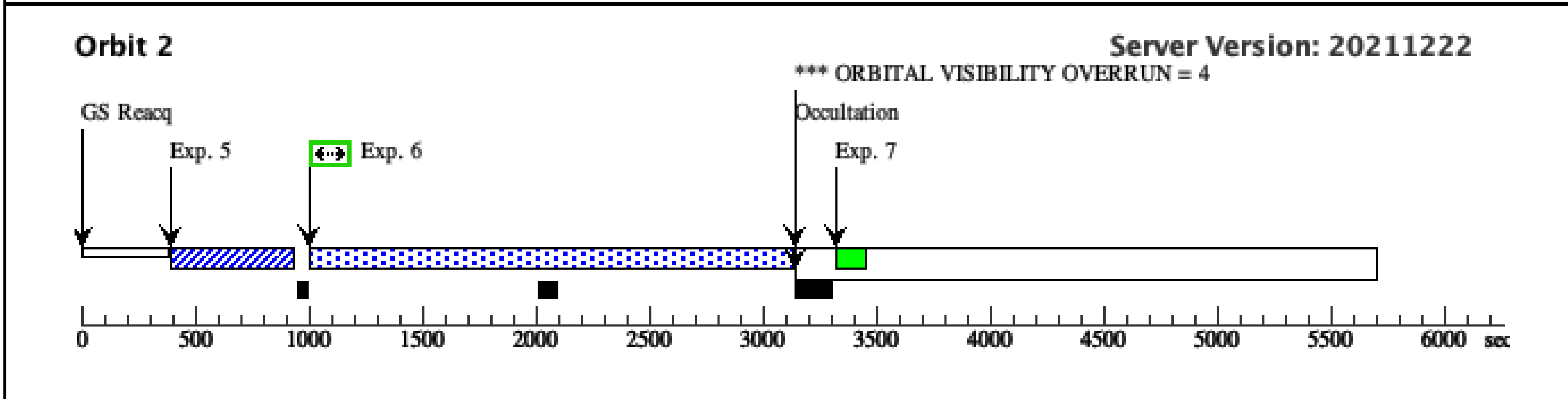
Exposures

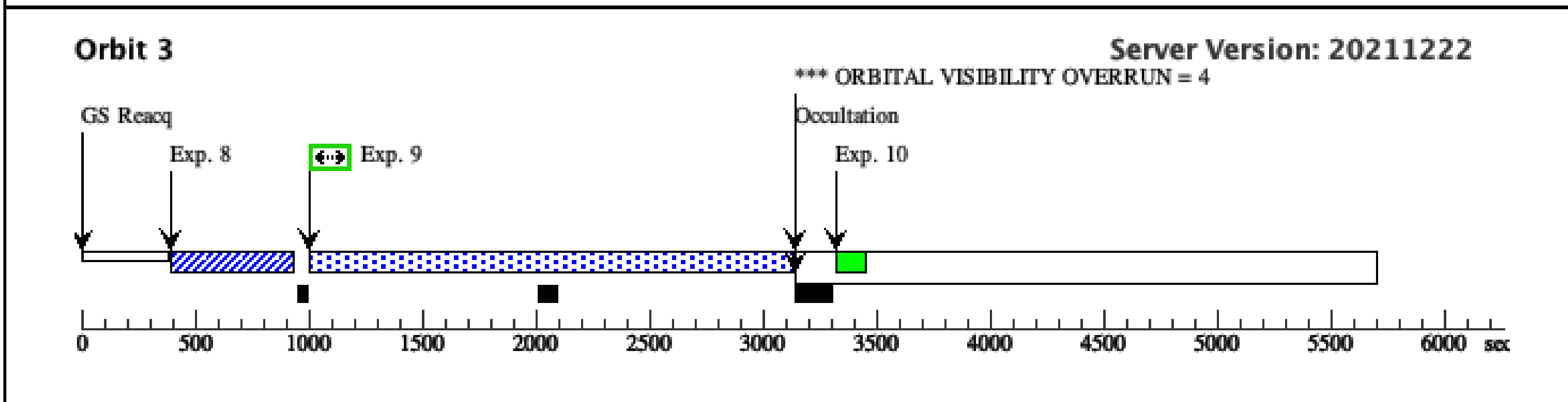
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Sep 03 (07)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR			Sequence 1-4 Non-Int in STIS Sep 03 (07)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Sep 03 (07)	1700 Secs (1700 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Sep 03 (07)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR			Sequence 5-7 Non-Int in STIS Sep 03 (07)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Sep 03 (07)	2000 Secs (2000 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Sep 03 (07)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR			Sequence 8-10 Non-Int in STIS Sep 03 (07)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Sep 03 (07)	2000 Secs (2000 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Sep 03 (07)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR			Sequence 11-13 Non-Int in STIS Sep 03 (07)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

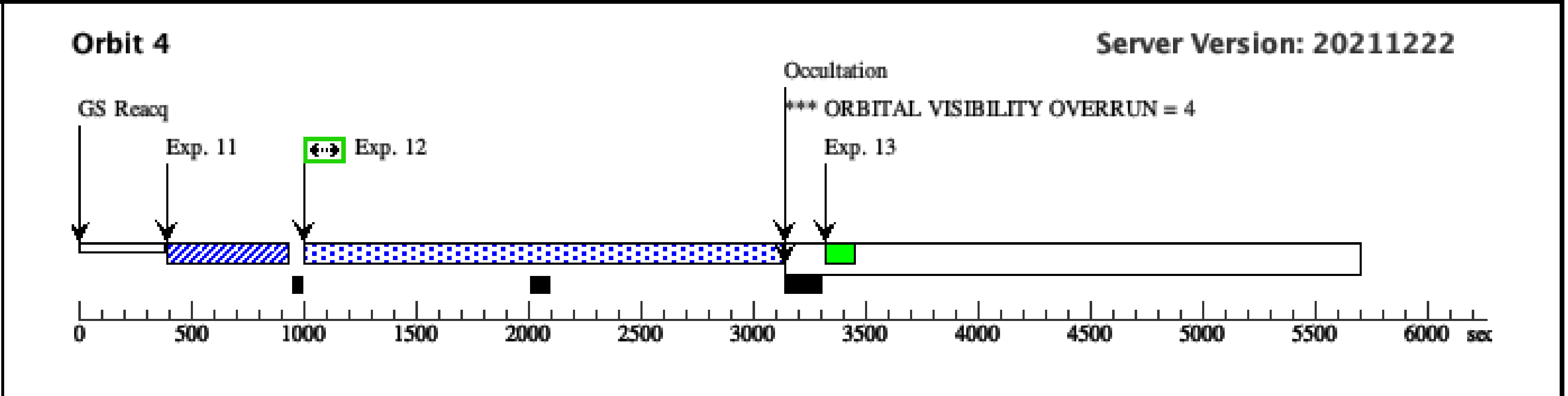
12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Sep 03 (07)	2000 Secs (2000 Secs) *[==>]*	***[4]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Sep 03 (07)	*[==>]*	***[4]***
14	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR		Sequence 14-16 Non-Int in STIS Sep 03 (07)	10 Secs (10 Secs) *[==>]*	***[5]***
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
15	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 14-16 Non-Int in STIS Sep 03 (07)	2000 Secs (2000 Secs) *[==>]*	***[5]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
16	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 14-16 Non-Int in STIS Sep 03 (07)	*[==>]*	***[5]***
17	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR		Sequence 17-19 Non-Int in STIS Sep 03 (07)	10 Secs (10 Secs) *[==>]*	***[6]***
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
18	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 17-19 Non-Int in STIS Sep 03 (07)	2000 Secs (2000 Secs) *[==>]*	***[6]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
19	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 17-19 Non-Int in STIS Sep 03 (07)	*[==>]*	***[6]***

Orbit Structure





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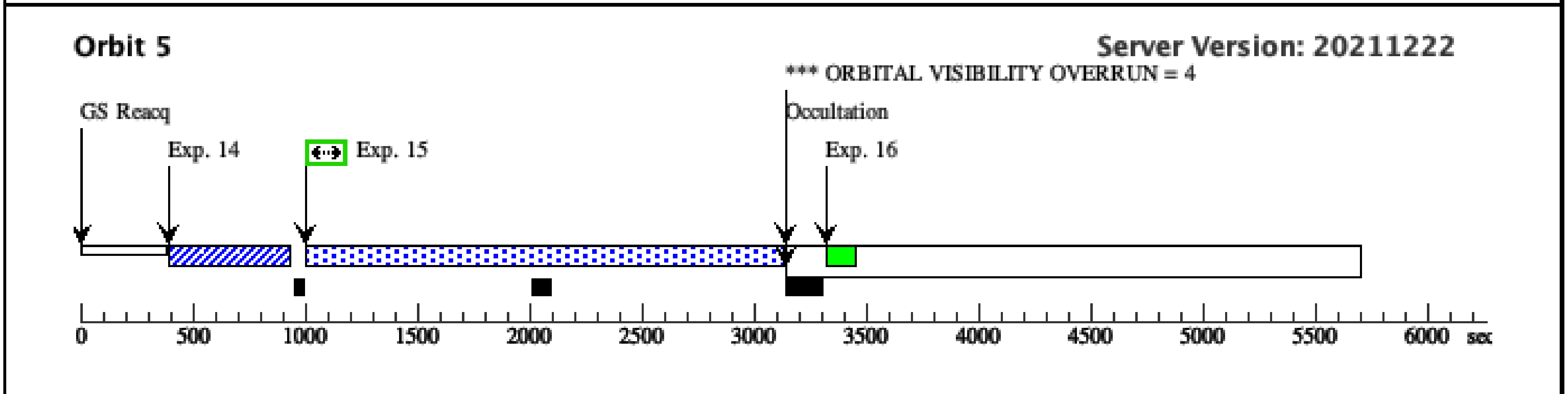
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Server Version: 20211222
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Occultation
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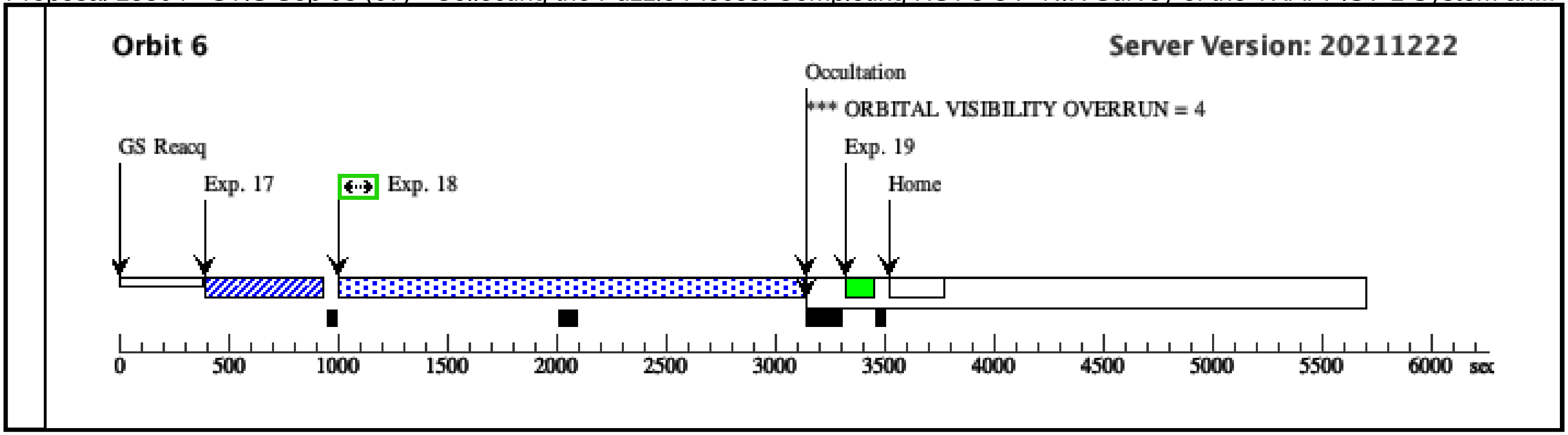
Orbit 6
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 4
GS Reacq
Exp. 17
Exp. 18
Exp. 19
Home
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500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS Sep 22 (31), failed Mon May 23 13:02:01 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 22-SEP-2017:09:00:00 AND 22-SEP-2017:20:30:00

Diagnostics

(STIS Sep 22 (31)) Warning (Orbit Planner): LONG STIS MAMA SU LIKELY TO INTERSECT THE SAA

(STIS Sep 22 (31)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Sep 22 (31)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Sep 22 (31)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Sep 22 (31)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Sep 22 (31)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Sep 22 (31)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

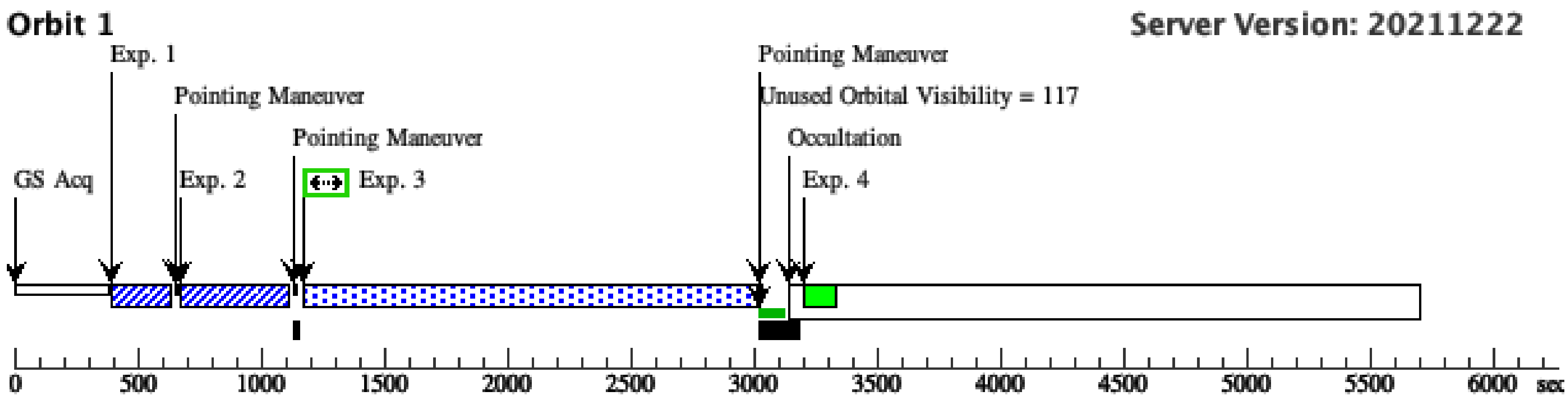
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

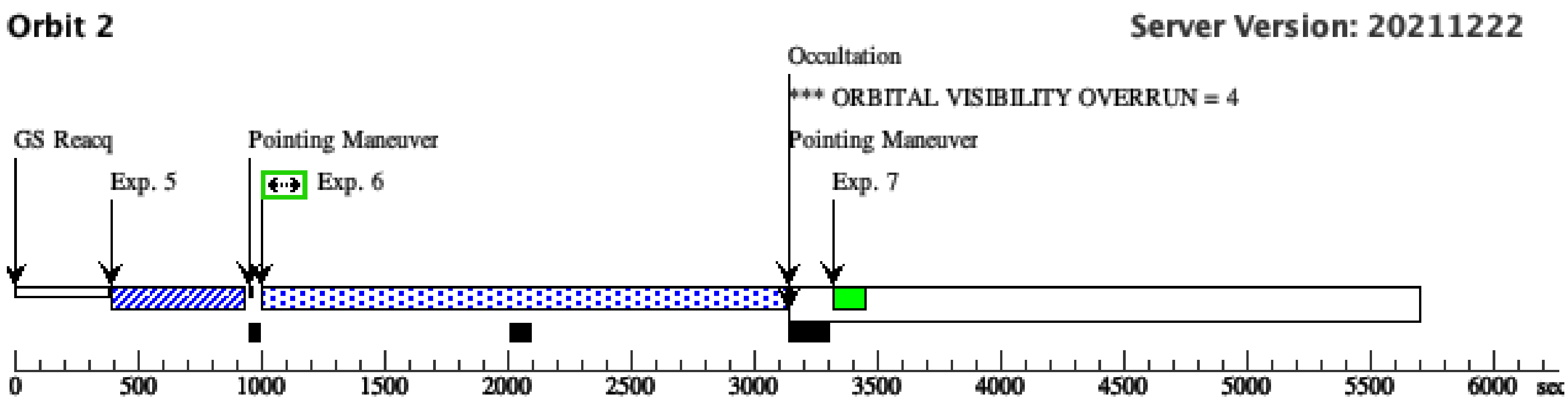
Exposures

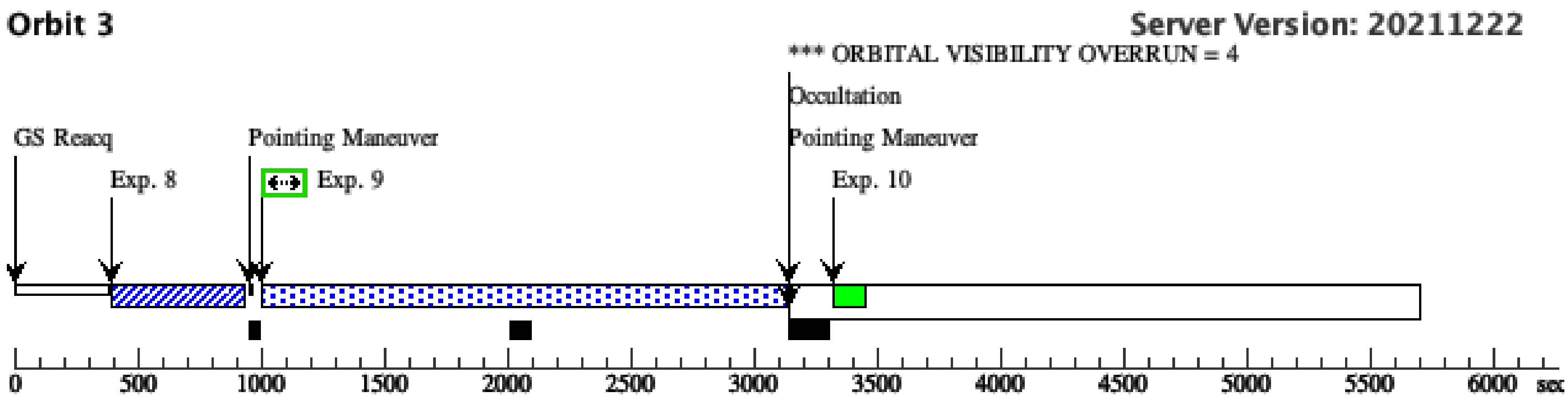
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Sep 22 (31)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Sep 22 (31)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Sep 22 (31)	1700 Secs (1700 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Sep 22 (31)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Sep 22 (31)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Sep 22 (31)	2000 Secs (2000 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Sep 22 (31)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Sep 22 (31)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Sep 22 (31)	2000 Secs (2000 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Sep 22 (31)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Sep 22 (31)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Sep 22 (31)	2000 Secs (2000 Secs) [==>]	[4]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.							
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Sep 22 (31)	[==>]	[4]
14	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 14-16 Non-Int in STIS Sep 22 (31)	10 Secs (10 Secs) [==>]	[5]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.							
15	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 14-16 Non-Int in STIS Sep 22 (31)	2000 Secs (2000 Secs) [==>]	[5]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.							
16	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 14-16 Non-Int in STIS Sep 22 (31)	[==>]	[5]
17	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 17-19 Non-Int in STIS Sep 22 (31)	10 Secs (10 Secs) [==>]	[6]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.							
18	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 17-19 Non-Int in STIS Sep 22 (31)	2000 Secs (2000 Secs) [==>]	[6]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.							
19	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 17-19 Non-Int in STIS Sep 22 (31)	[==>]	[6]
20	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 20-22 Non-Int in STIS Sep 22 (31)	10 Secs (10 Secs) [==>]	[7]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.							
21	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 20-22 Non-Int in STIS Sep 22 (31)	2000 Secs (2000 Secs) [==>]	[7]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.							
22	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 20-22 Non-Int in STIS Sep 22 (31)	[==>]	[7]

Orbit Structure



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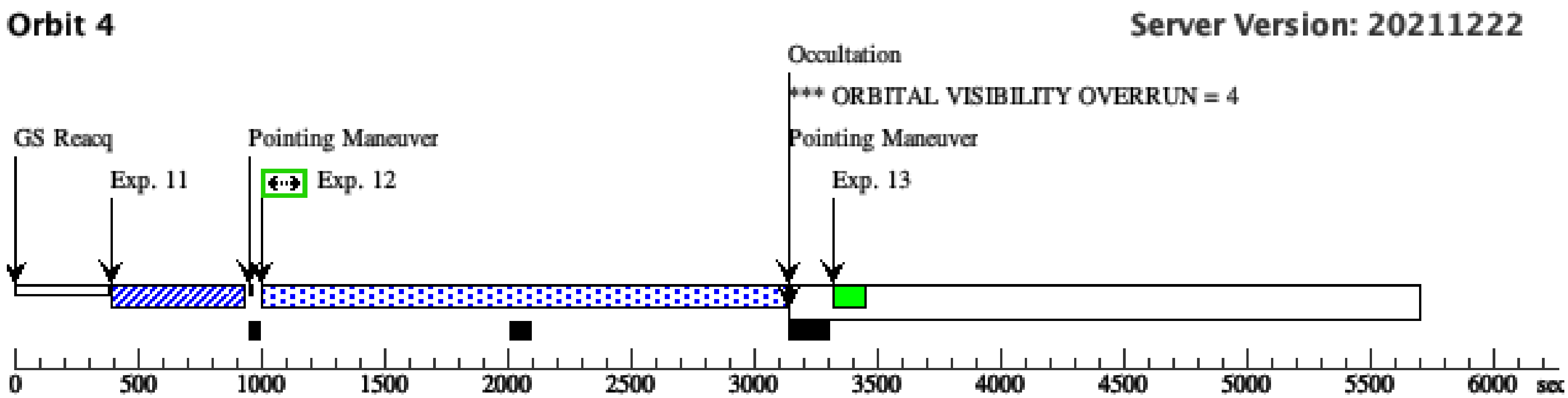
sec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Pointing Maneuver
Pointing Maneuver
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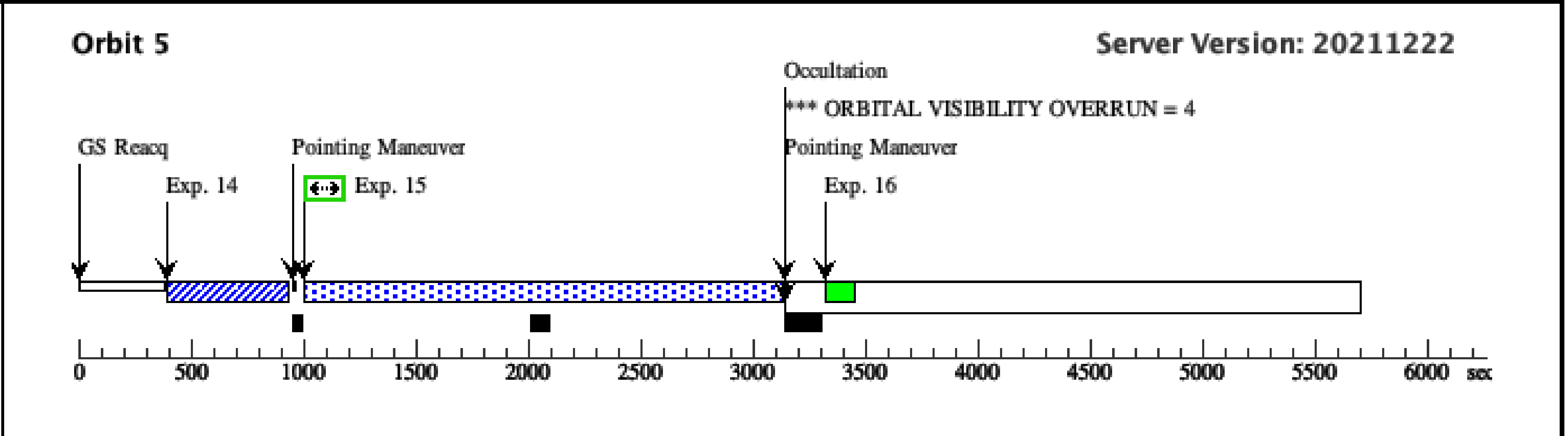
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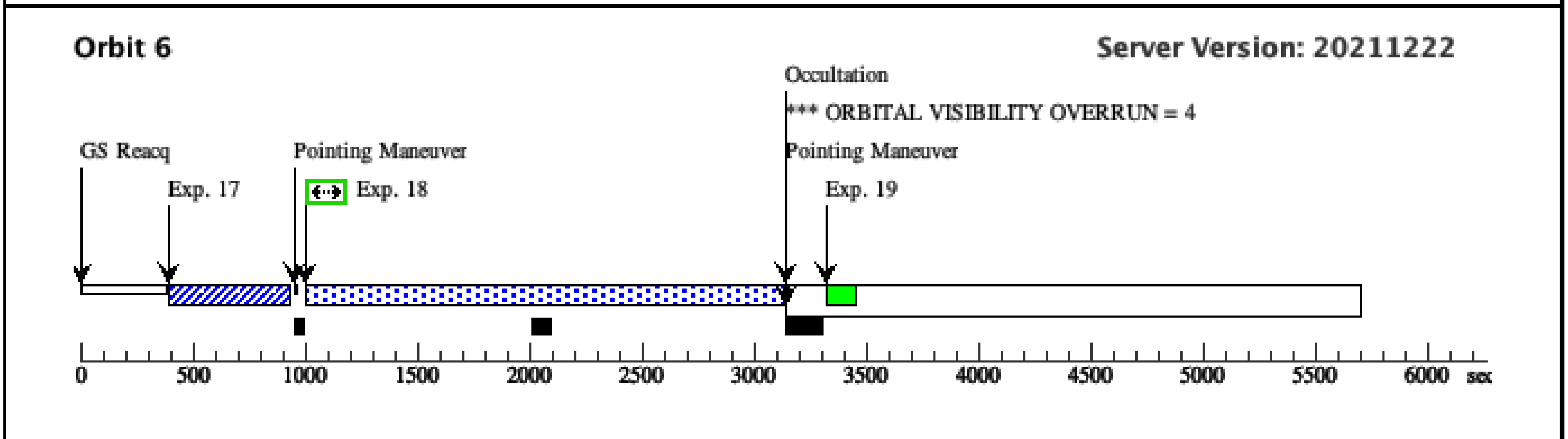
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Server Version: 20211222
Occultation
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Pointing Maneuver
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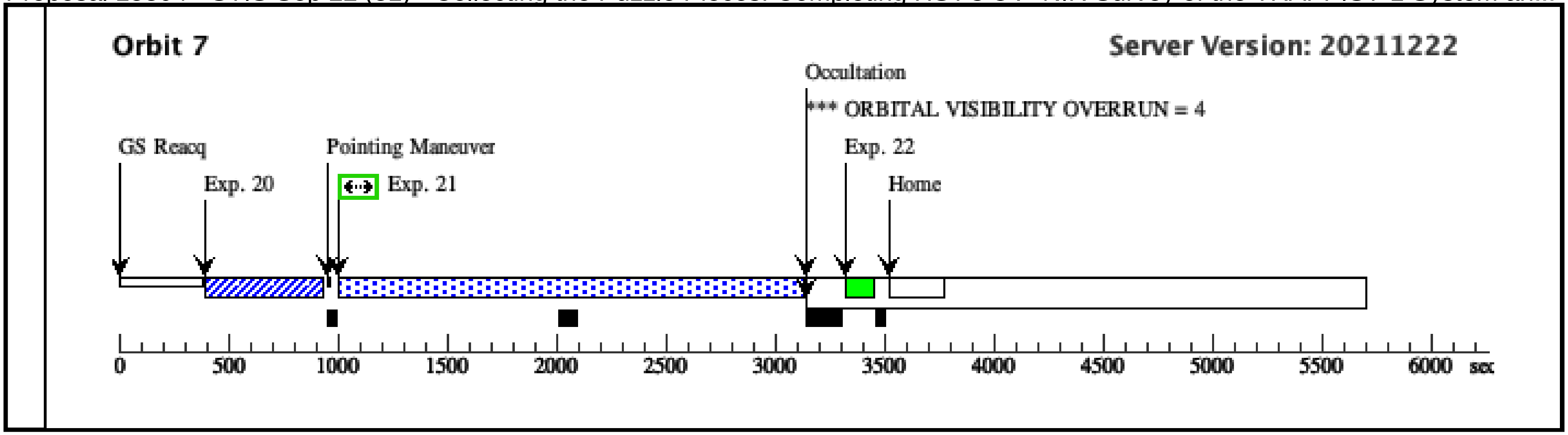
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Server Version: 20211222
Occultation
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Pointing Maneuver
Exp. 20
Exp. 21
Exp. 22
Home
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1500
2000
2500
3000
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4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS Sep 28 (32), completed — Mon May 23 13:02:01 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 28-SEP-2017:06:30:00 AND 28-SEP-2017:18:30:00

Diagnostics

(STIS Sep 28 (32)) Warning (Orbit Planner): LONG STIS MAMA SU LIKELY TO INTERSECT THE SAA
(STIS Sep 28 (32)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 28 (32)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
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(STIS Sep 28 (32)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

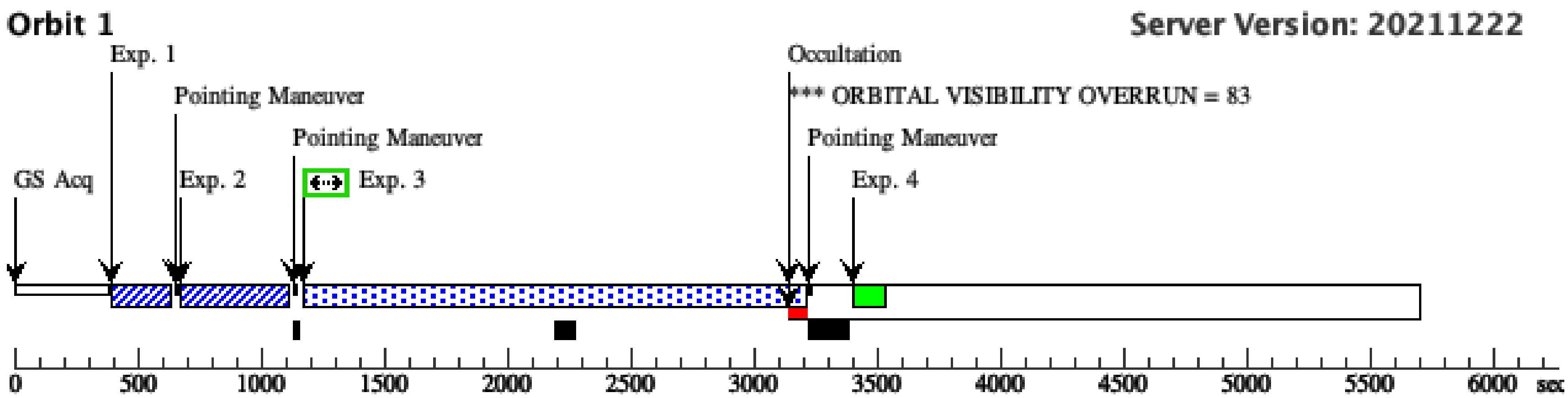
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

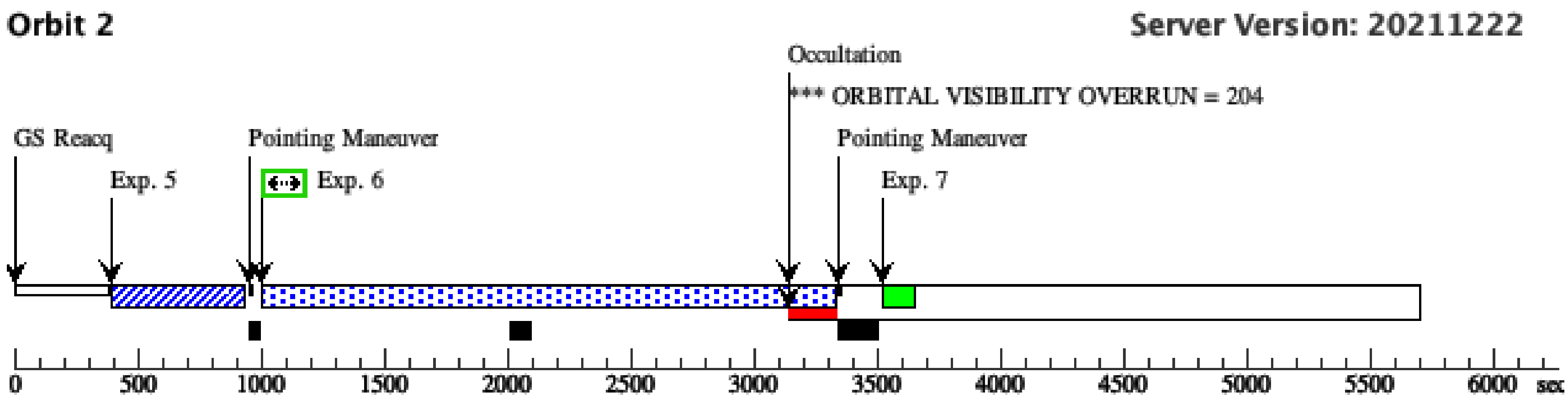
Exposures

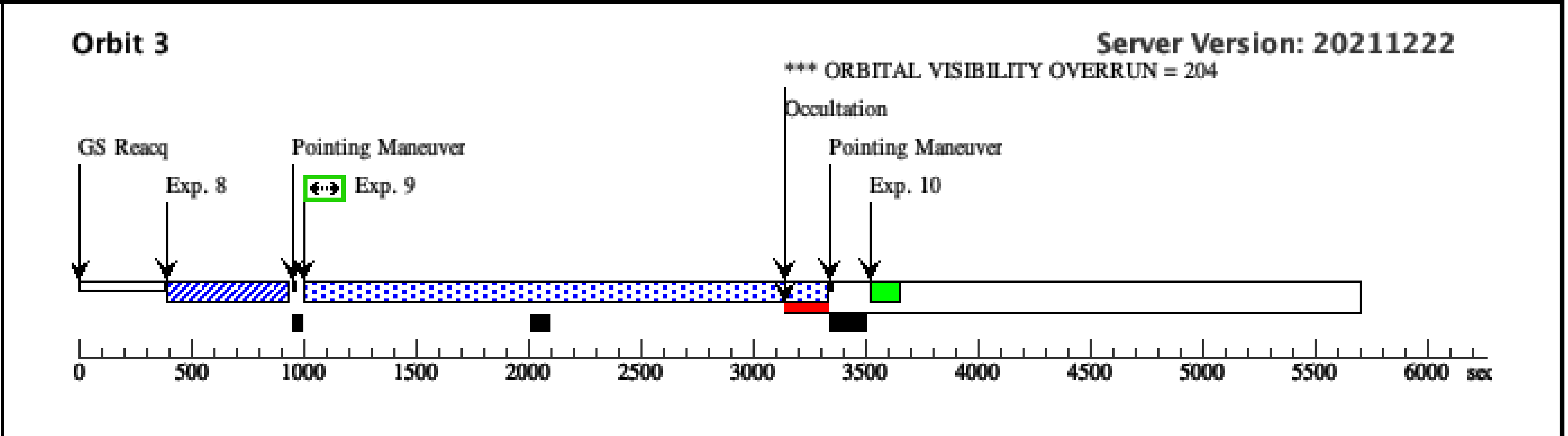
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Sep 28 (32)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Sep 28 (32)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Sep 28 (32)	1900 Secs (1900 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Sep 28 (32)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Sep 28 (32)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Sep 28 (32)	2200 Secs (2200 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Sep 28 (32)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Sep 28 (32)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Sep 28 (32)	2200 Secs (2200 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Sep 28 (32)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Sep 28 (32)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Sep 28 (32)	2200 Secs (2200 Secs) [==>]	[4]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Sep 28 (32)	[==>]	[4]
14	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 14-16 Non-Int in STIS Sep 28 (32)	10 Secs (10 Secs) [==>]	[5]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
15	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 14-16 Non-Int in STIS Sep 28 (32)	2200 Secs (2200 Secs) [==>]	[5]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
16	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 14-16 Non-Int in STIS Sep 28 (32)	[==>]	[5]
17	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 17-19 Non-Int in STIS Sep 28 (32)	10 Secs (10 Secs) [==>]	[6]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
18	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 17-19 Non-Int in STIS Sep 28 (32)	2200 Secs (2200 Secs) [==>]	[6]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
19	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 17-19 Non-Int in STIS Sep 28 (32)	[==>]	[6]
20	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 20-22 Non-Int in STIS Sep 28 (32)	10 Secs (10 Secs) [==>]	[7]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
21	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 20-22 Non-Int in STIS Sep 28 (32)	2200 Secs (2200 Secs) [==>]	[7]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
22	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 20-22 Non-Int in STIS Sep 28 (32)	[==>]	[7]

Orbit Structure



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Server Version: 20211222
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Occultation
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Pointing Maneuver
Pointing Maneuver
Exp. 8
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Exp. 10
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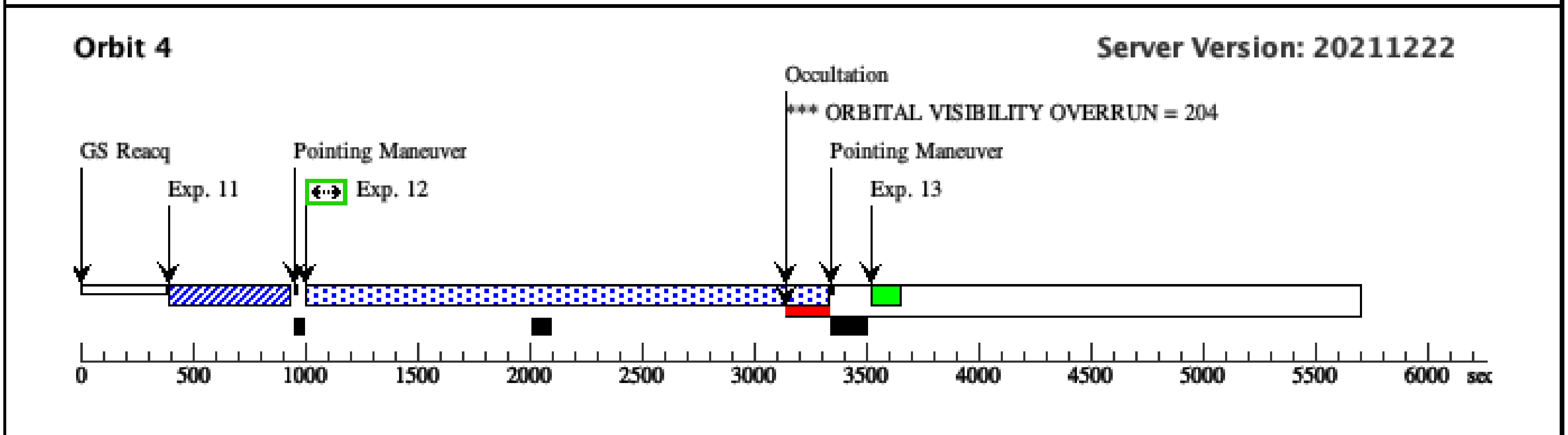
sec


Orbit 4
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 204
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 11
Exp. 12
Exp. 13
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1000
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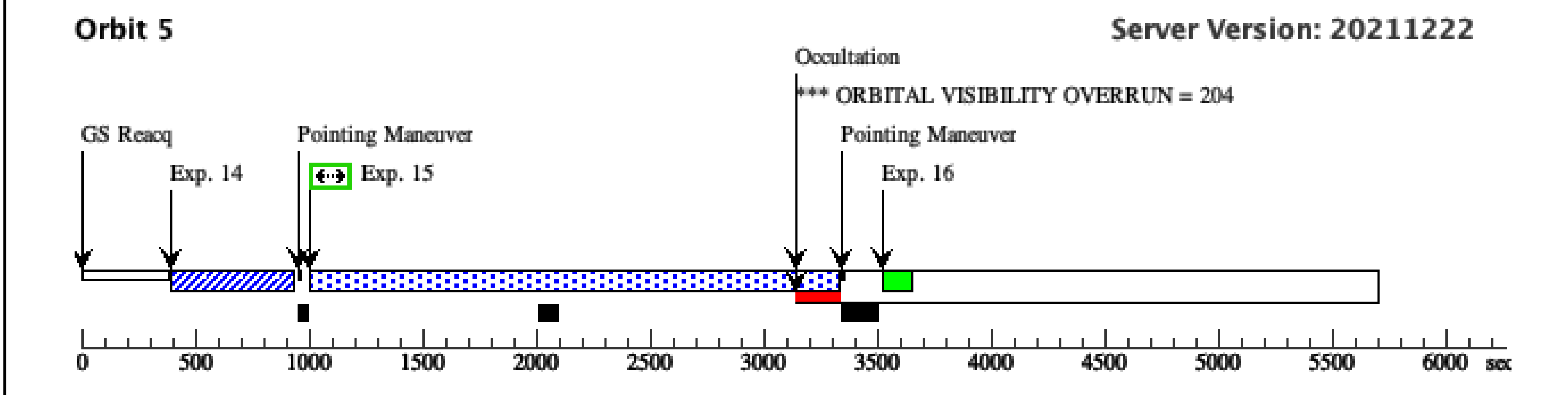
4500
5000
5500
6000
sec



Orbit 5
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 204
GS Reacq
Pointing Maneuver
Pointing Maneuver
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Exp. 15
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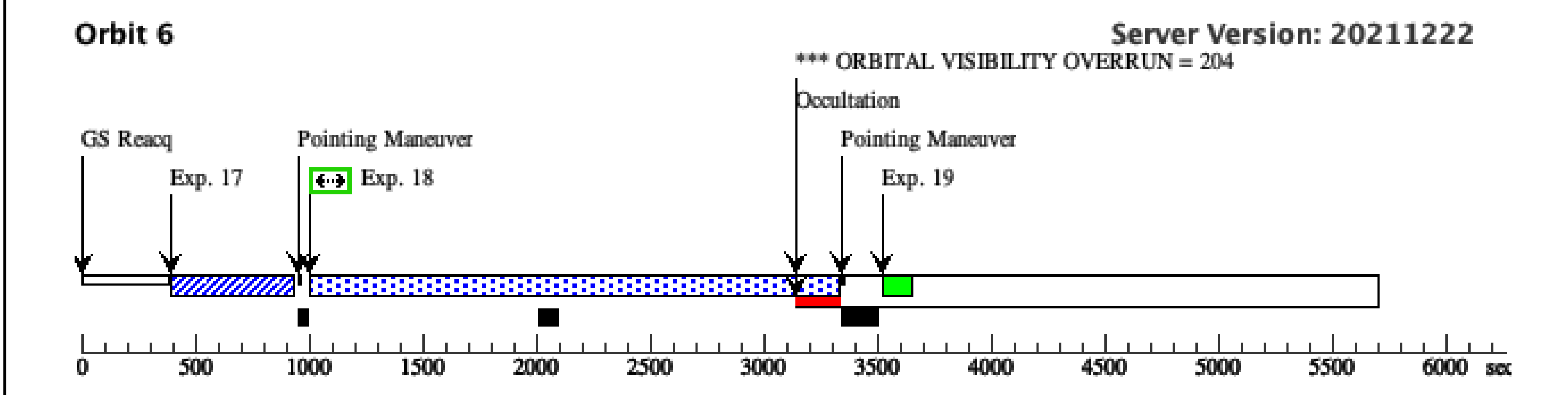
6000
sec



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Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 204
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Pointing Maneuver
Pointing Maneuver
Exp. 17
Exp. 18
Exp. 19
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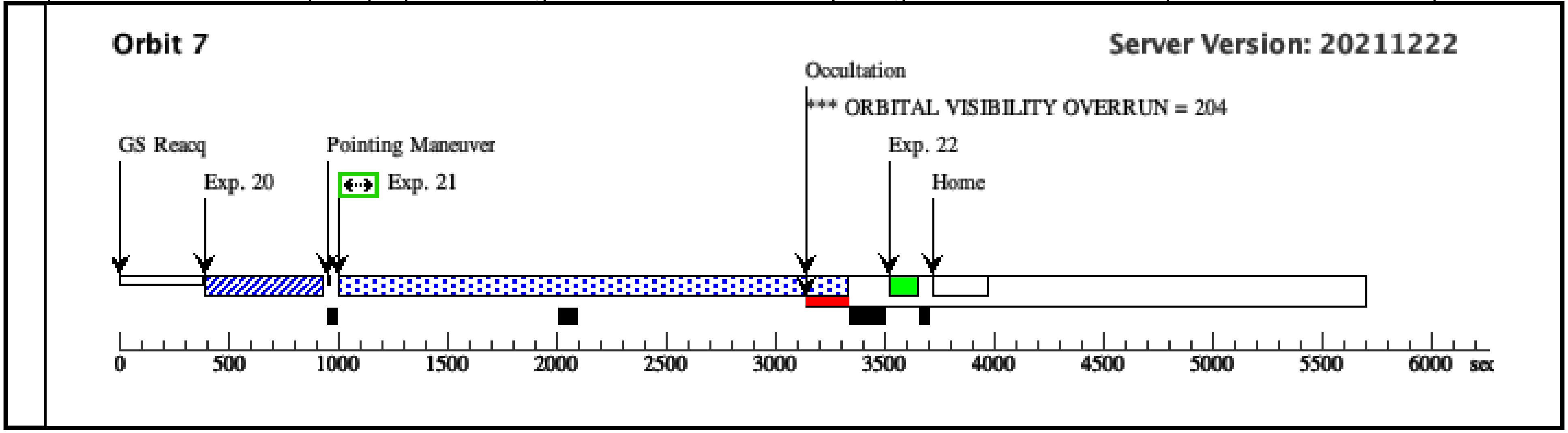
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 7
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 204
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Pointing Maneuver
Exp. 22
Exp. 20
Exp. 21
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS Oct 13 (33), failed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 12-OCT-2017:23:20:00 AND 13-OCT-2017:00:30:00

Diagnostics

(STIS Oct 13 (33)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Oct 13 (33)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Oct 13 (33)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Oct 13 (33)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Oct 13 (33)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

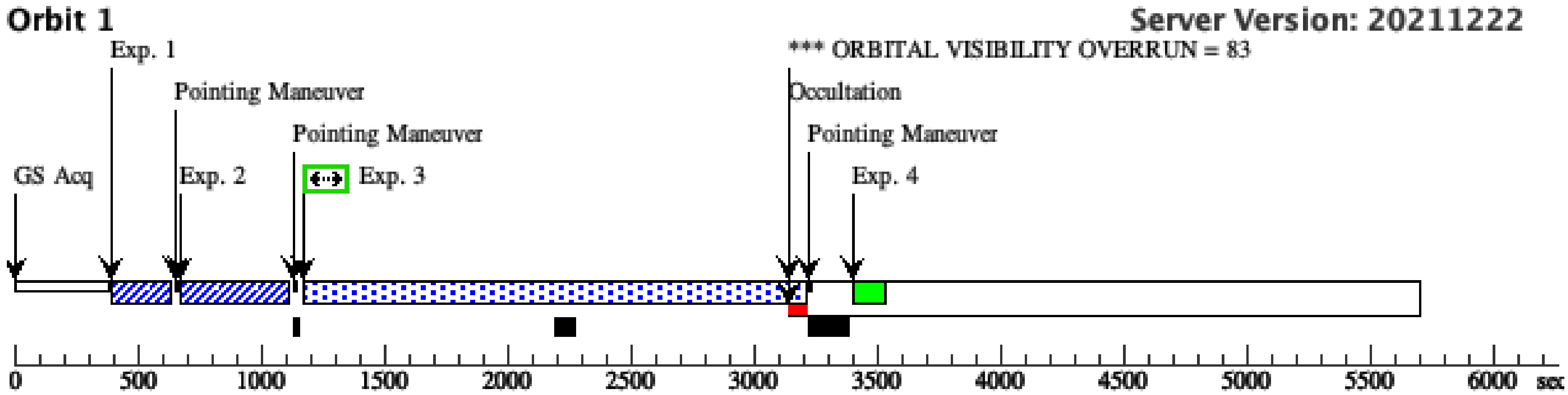
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

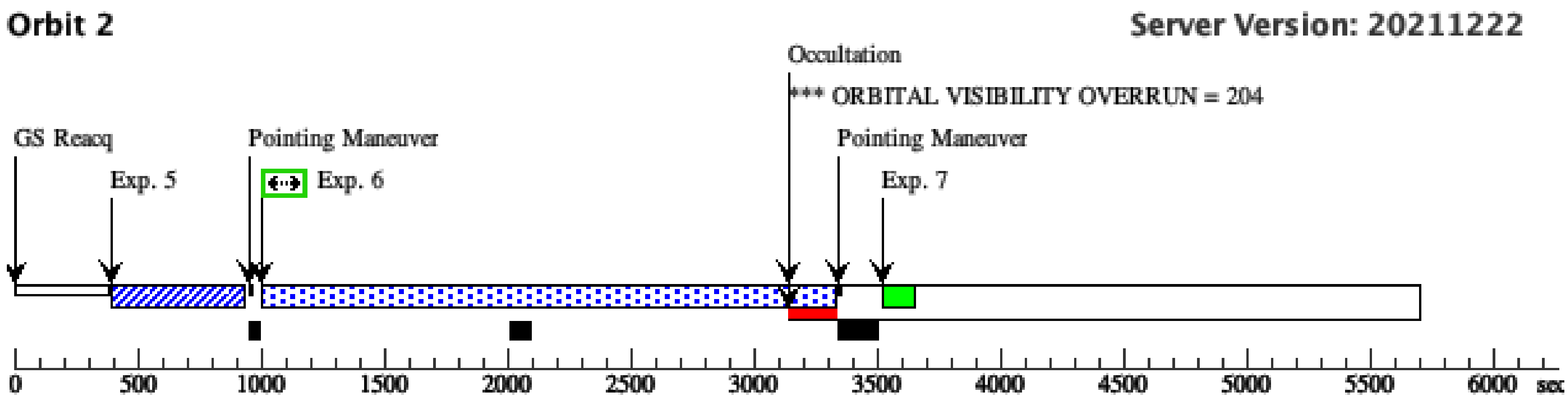
Exposures

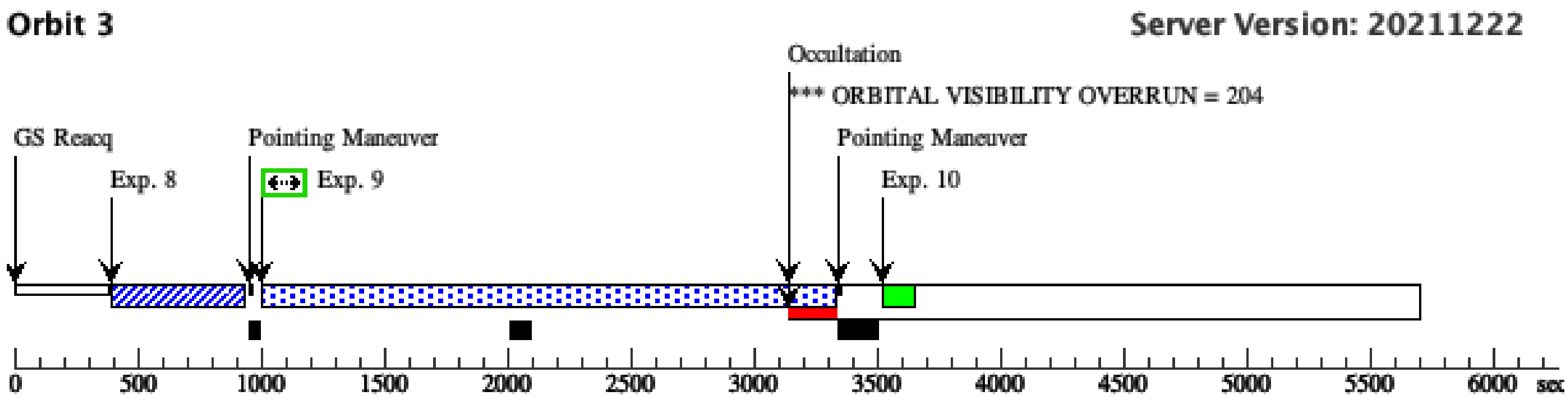
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Oct 13 (33)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Oct 13 (33)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Oct 13 (33)	1900 Secs (1900 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Oct 13 (33)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Oct 13 (33)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Oct 13 (33)	2200 Secs (2200 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Oct 13 (33)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Oct 13 (33)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Oct 13 (33)	2200 Secs (2200 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Oct 13 (33)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Oct 13 (33)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Oct 13 (33)	2200 Secs (2200 Secs) [==>]	[4]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Oct 13 (33)	[==>]	[4]
14	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 14-16 Non-Int in STIS Oct 13 (33)	10 Secs (10 Secs) [==>]	[5]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
15	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 14-16 Non-Int in STIS Oct 13 (33)	2200 Secs (2200 Secs) [==>]	[5]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
16	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 14-16 Non-Int in STIS Oct 13 (33)	[==>]	[5]

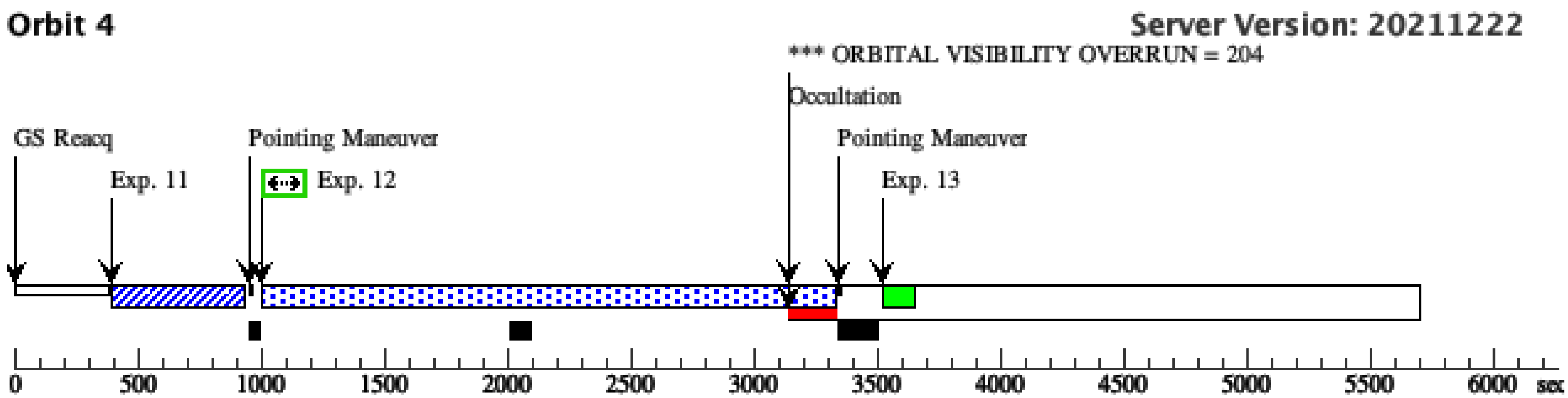
Orbit Structure



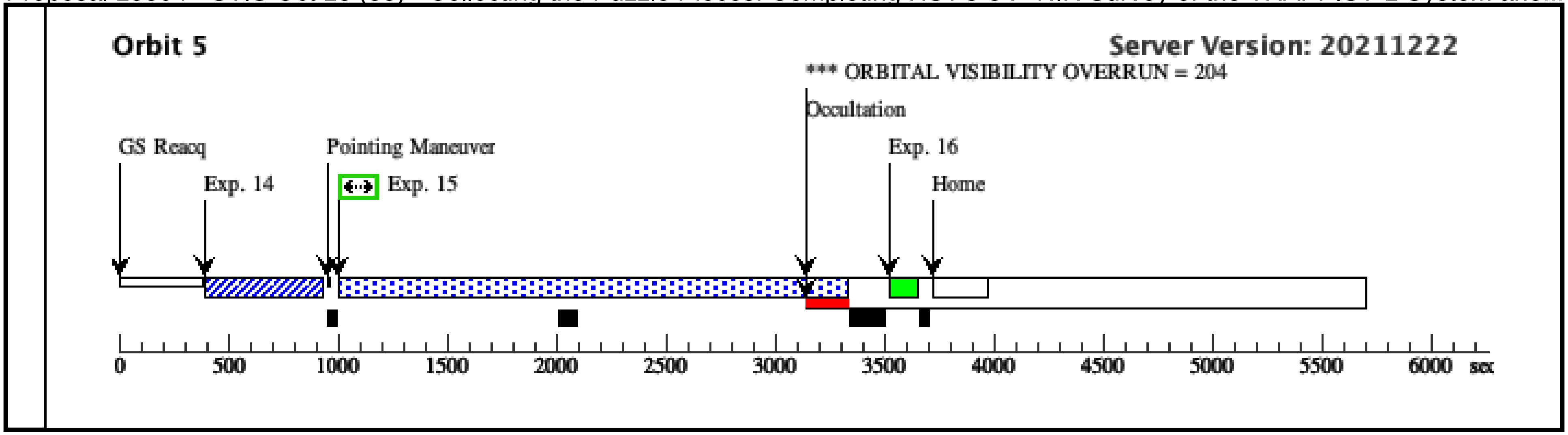




Orbit 3
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 204
GS Reacq
Pointing Maneuver
Exp. 8
Exp. 9
Pointing Maneuver
Exp. 10
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec



Orbit 4
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 204
Occultation
GS Reacq
Pointing Maneuver
Exp. 11
Exp. 12
Pointing Maneuver
Exp. 13
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec



Orbit 5
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 204
Occultation
GS Reacq
Pointing Maneuver
Exp. 16
Exp. 14
Exp. 15
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS Oct 17 (16), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 17-OCT-2017:23:00:00 AND 18-OCT-2017:05:00:00

Diagnostics

(STIS Oct 17 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Oct 17 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Oct 17 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Oct 17 (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

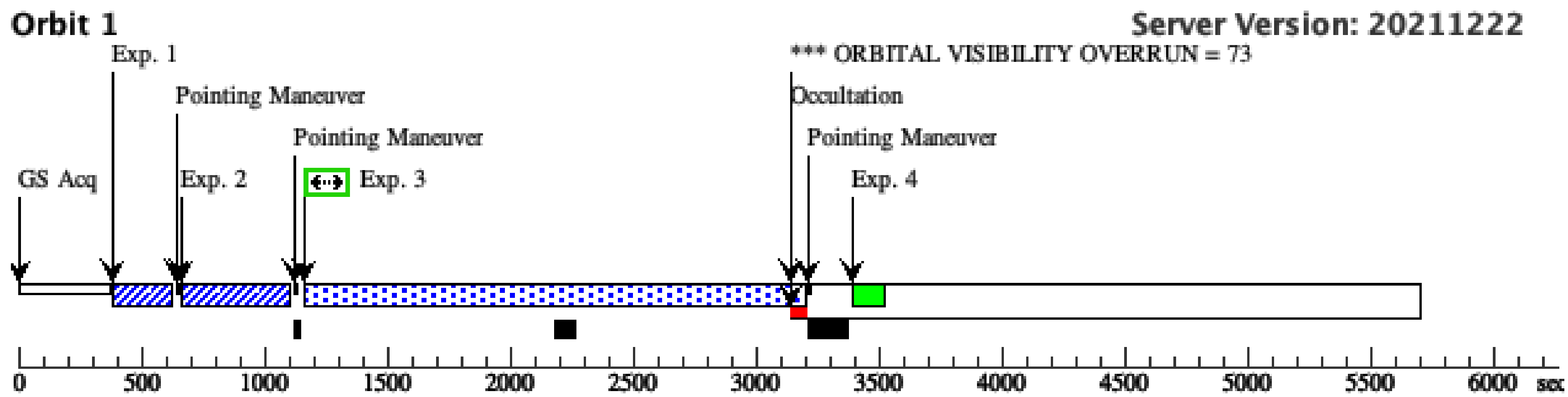
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

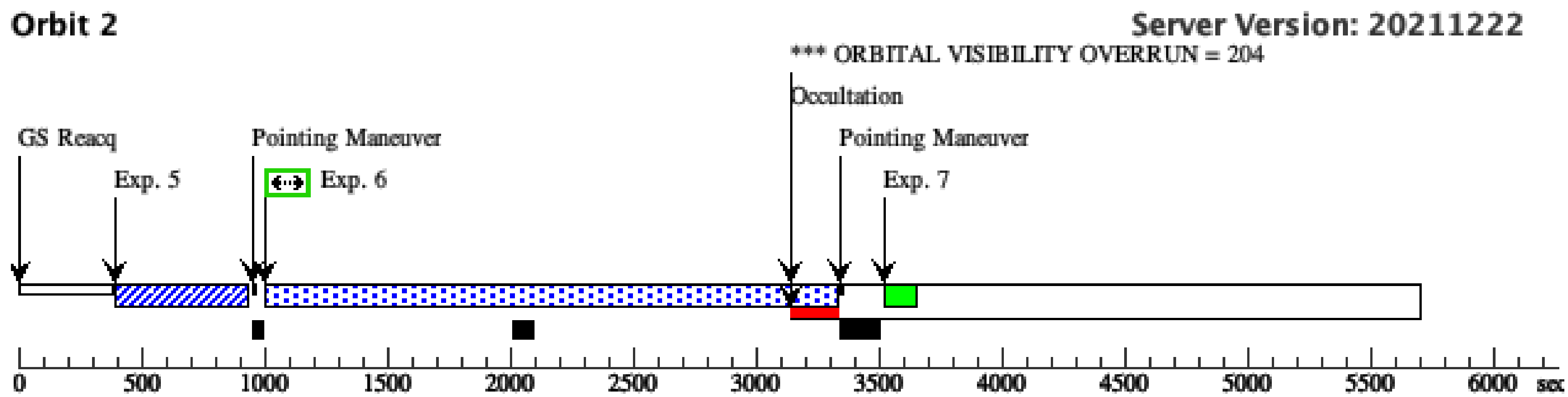
Exposures

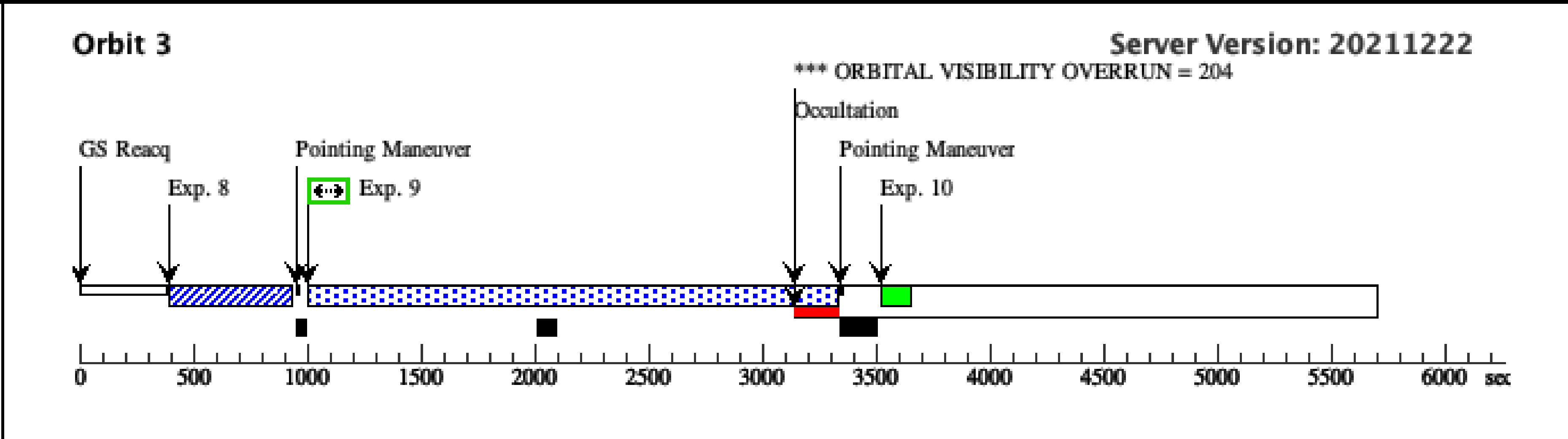
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		GS ACQ SCENARIO BASE1B3	Sequence 1-4 Non-Int in STIS Oct 17 (16)	5 Secs (5 Secs) [==>]	[1]
Comments: *We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.*									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Oct 17 (16)	10 Secs (10 Secs) [==>]	[1]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Oct 17 (16)	1900 Secs (1900 Secs) [==>]	[1]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Oct 17 (16)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Oct 17 (16)	10 Secs (10 Secs) [==>]	[2]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Oct 17 (16)	2200 Secs (2200 Secs) [==>]	[2]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Oct 17 (16)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Oct 17 (16)	10 Secs (10 Secs) [==>]	[3]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Oct 17 (16)	2200 Secs (2200 Secs) [==>]	[3]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Oct 17 (16)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Oct 17 (16)	10 Secs (10 Secs) [==>]	[4]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									

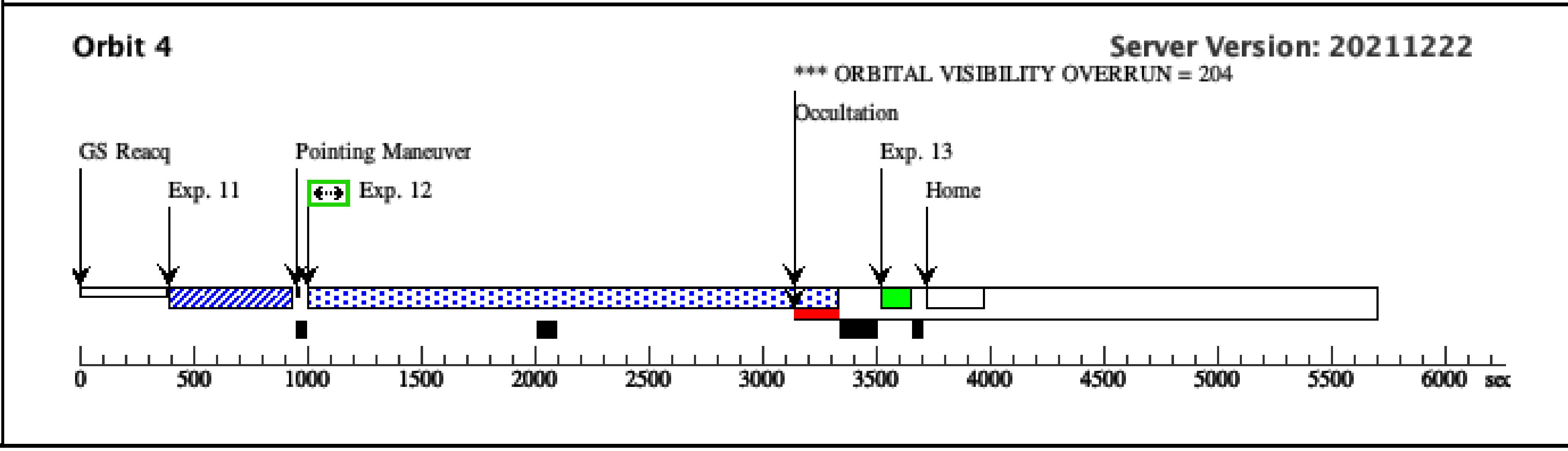
12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Oct 17 (16)	2200 Secs (2200 Secs) *[==>]*	***[4]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Oct 17 (16)	*[==>]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 204
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 204
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS Sep 14 (29), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 14-SEP-2017:12:00:00 AND 14-SEP-2017:13:00:00

Diagnostics

(STIS Sep 14 (29)) Warning (Orbit Planner): LONG STIS MAMA SU LIKELY TO INTERSECT THE SAA
(STIS Sep 14 (29)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 14 (29)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 14 (29)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 14 (29)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 14 (29)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

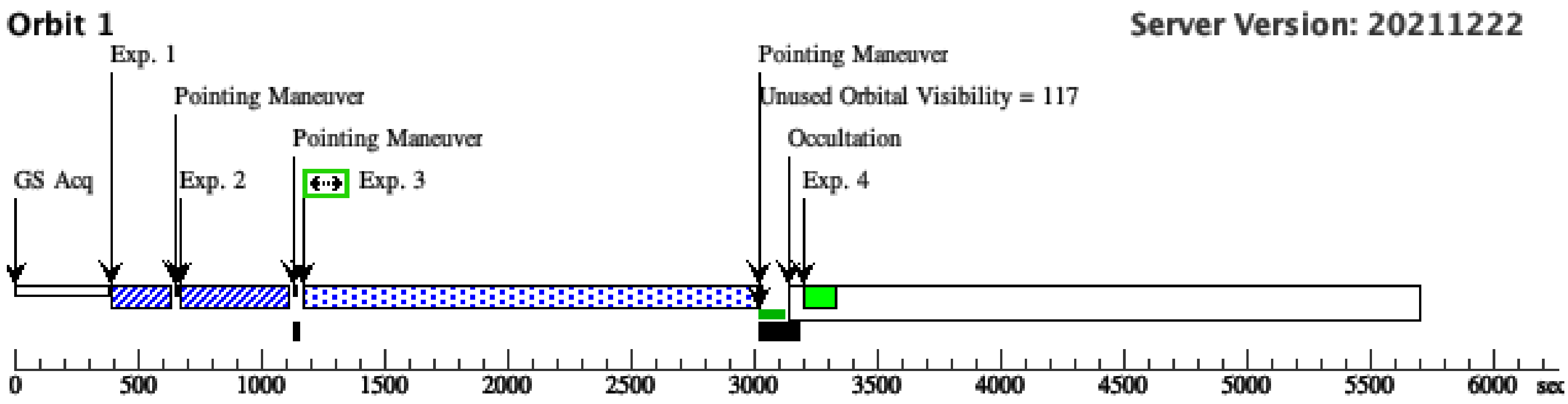
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

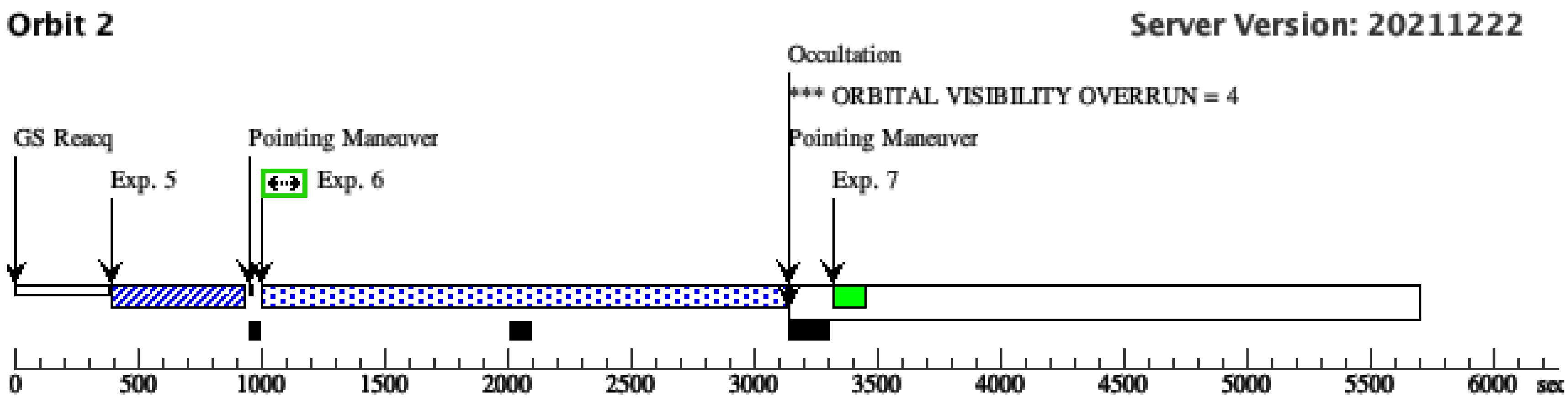
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Sep 14 (29)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Sep 14 (29)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Sep 14 (29)	1700 Secs (1700 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Sep 14 (29)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Sep 14 (29)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Sep 14 (29)	2000 Secs (2000 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Sep 14 (29)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Sep 14 (29)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Sep 14 (29)	2000 Secs (2000 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Sep 14 (29)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Sep 14 (29)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Sep 14 (29)	2000 Secs (2000 Secs) *[==>]*	***[4]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Sep 14 (29)	*[==>]*	***[4]***
14	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 14-16 Non-Int in STIS Sep 14 (29)	10 Secs (10 Secs) *[==>]*	***[5]***
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
15	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 14-16 Non-Int in STIS Sep 14 (29)	2000 Secs (2000 Secs) *[==>]*	***[5]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
16	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 14-16 Non-Int in STIS Sep 14 (29)	*[==>]*	***[5]***
17	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 17-19 Non-Int in STIS Sep 14 (29)	10 Secs (10 Secs) *[==>]*	***[6]***
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
18	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 17-19 Non-Int in STIS Sep 14 (29)	2000 Secs (2000 Secs) *[==>]*	***[6]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
19	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 17-19 Non-Int in STIS Sep 14 (29)	*[==>]*	***[6]***

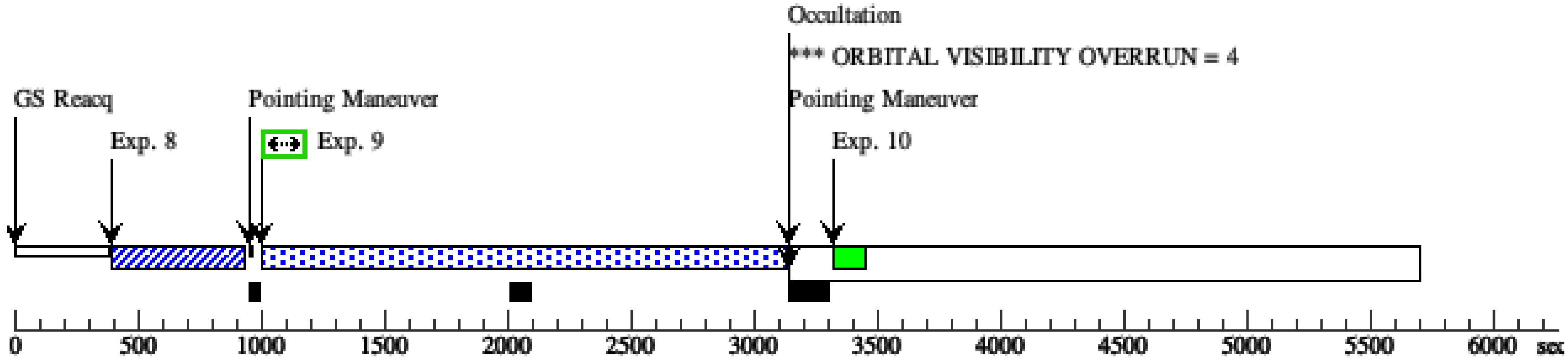
Orbit Structure





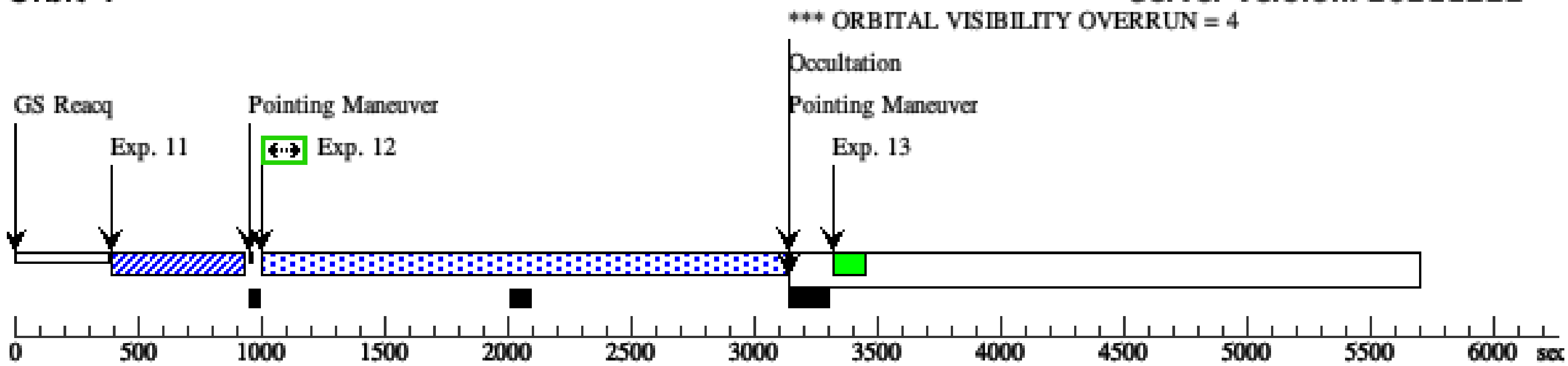
Orbit 3

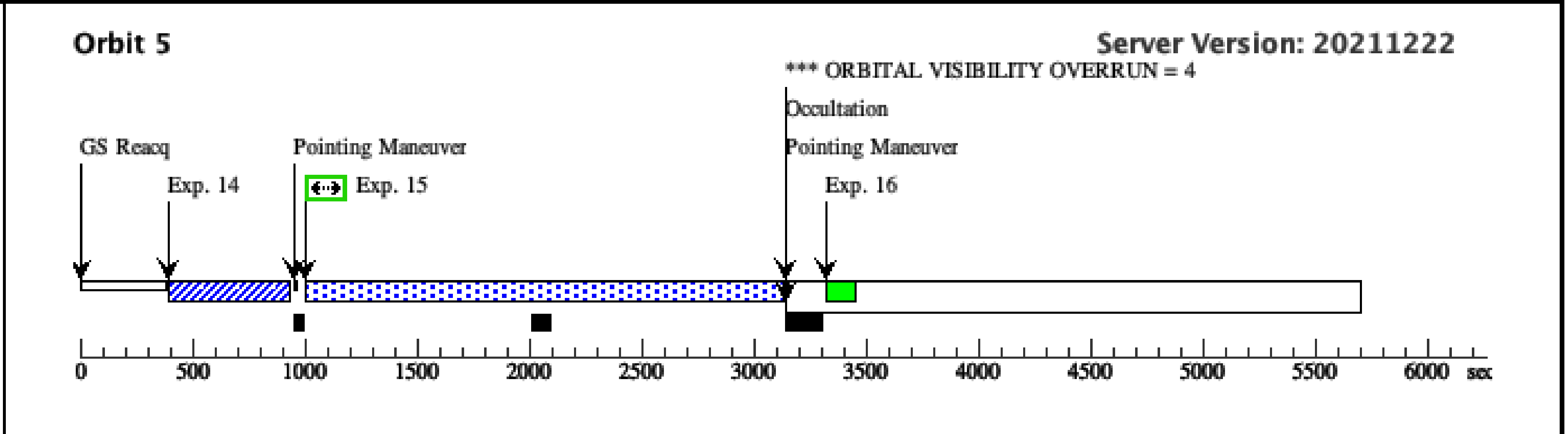
Server Version: 20211222



Orbit 4

Server Version: 20211222





Orbit 5
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 4
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 14
Exp. 15
Exp. 16
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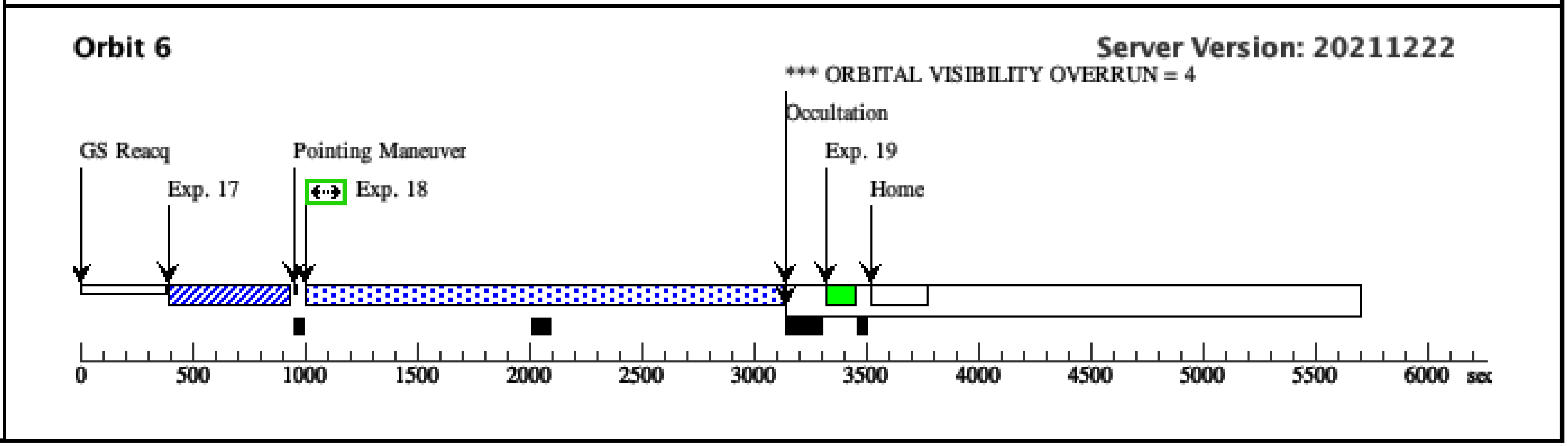


Orbit 6
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 4
Occultation
GS Reacq
Pointing Maneuver
Exp. 19
Exp. 17
Exp. 18
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS Sep 17 (30), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 17-SEP-2017:11:30:00 AND 17-SEP-2017:12:30:00

Diagnostics

(STIS Sep 17 (30)) Warning (Orbit Planner): LONG STIS MAMA SU LIKELY TO INTERSECT THE SAA
(STIS Sep 17 (30)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 17 (30)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 17 (30)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 17 (30)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS Sep 17 (30)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

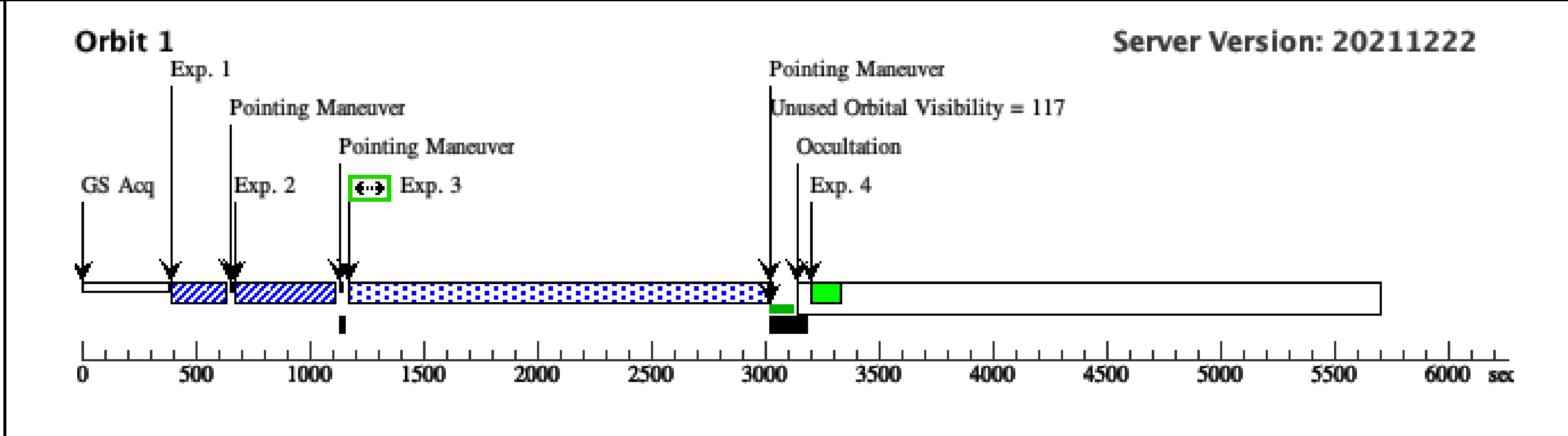
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

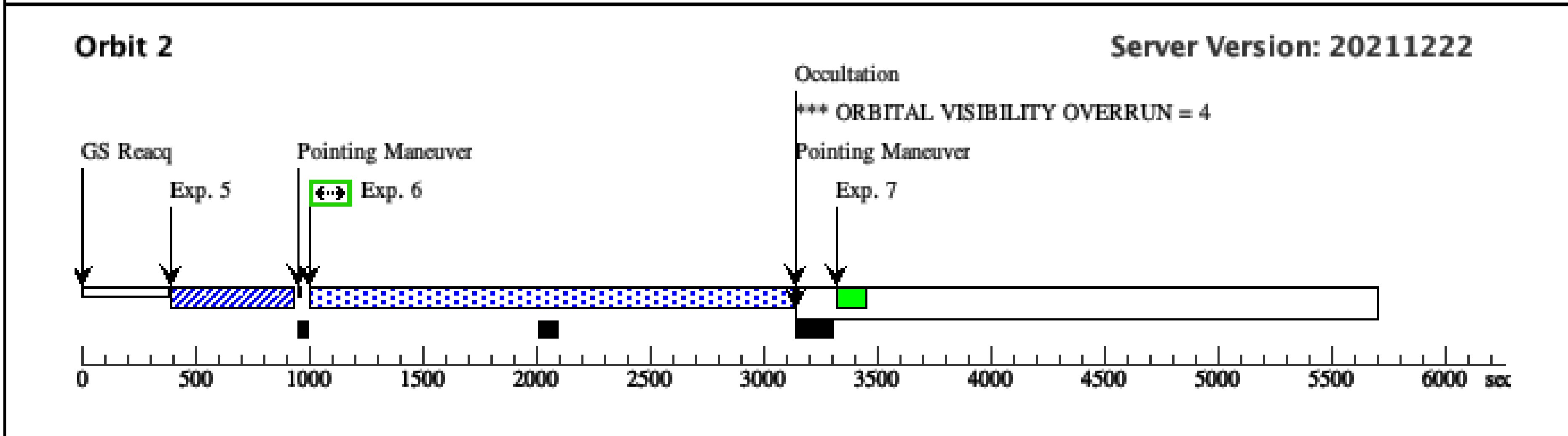
Exposures

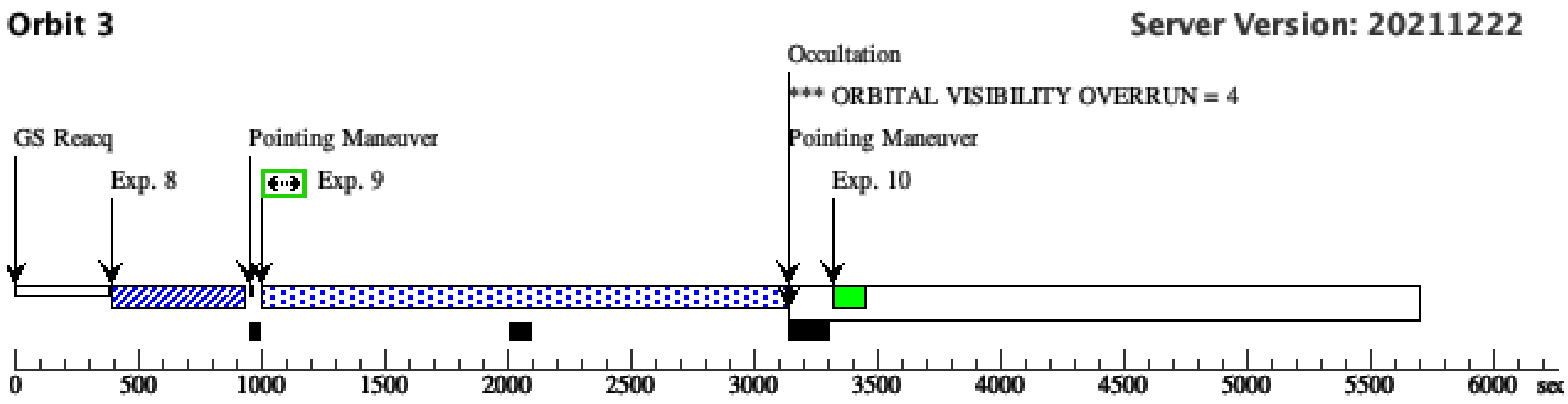
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Sep 17 (30)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Sep 17 (30)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Sep 17 (30)	1700 Secs (1700 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Sep 17 (30)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Sep 17 (30)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Sep 17 (30)	2000 Secs (2000 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Sep 17 (30)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Sep 17 (30)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Sep 17 (30)	2000 Secs (2000 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Sep 17 (30)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Sep 17 (30)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Sep 17 (30)	2000 Secs (2000 Secs) [==>]	[4]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Sep 17 (30)	[==>]	[4]
14	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 14-16 Non-Int in STIS Sep 17 (30)	10 Secs (10 Secs) [==>]	[5]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
15	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 14-16 Non-Int in STIS Sep 17 (30)	2000 Secs (2000 Secs) [==>]	[5]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
16	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 14-16 Non-Int in STIS Sep 17 (30)	[==>]	[5]
17	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR		Sequence 17-19 Non-Int in STIS Sep 17 (30)	10 Secs (10 Secs) [==>]	[6]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
18	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 17-19 Non-Int in STIS Sep 17 (30)	2000 Secs (2000 Secs) [==>]	[6]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
19	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 17-19 Non-Int in STIS Sep 17 (30)	[==>]	[6]

Orbit Structure






Orbit 3
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Occultation
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GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0
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1000
1500
2000
2500
3000
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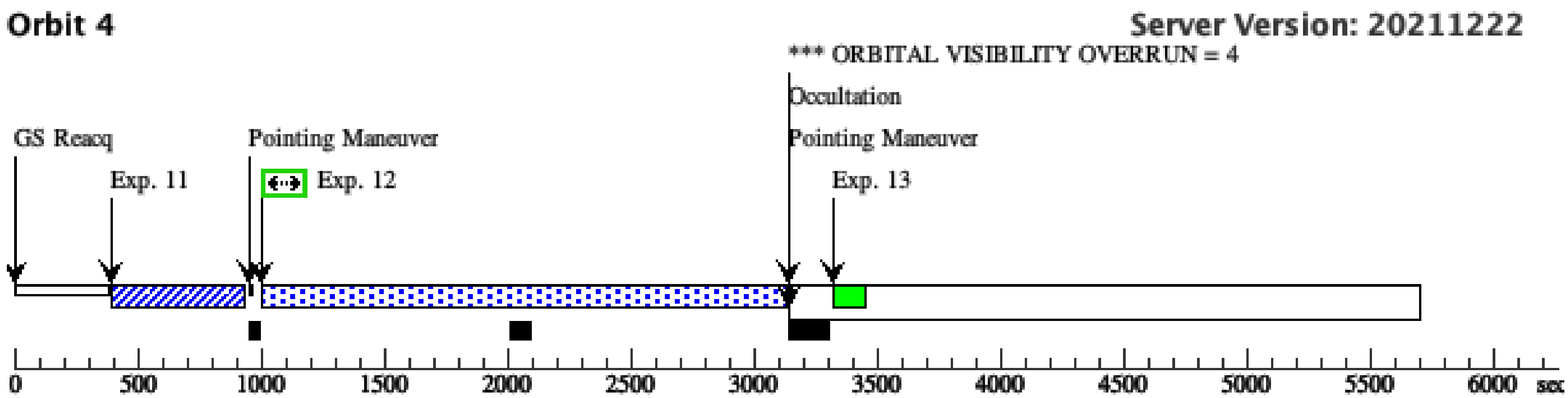
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 4
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 11
Exp. 12
Exp. 13
0
500
1000
1500
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2500
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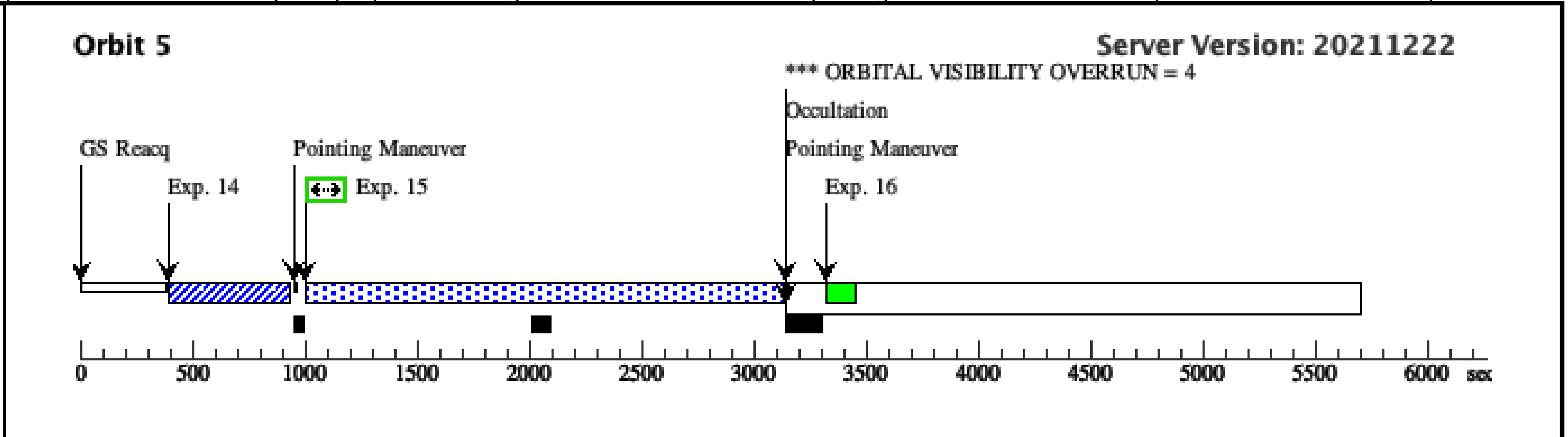
4500
5000
5500
6000
sec


Orbit 5
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 4
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 14
Exp. 15
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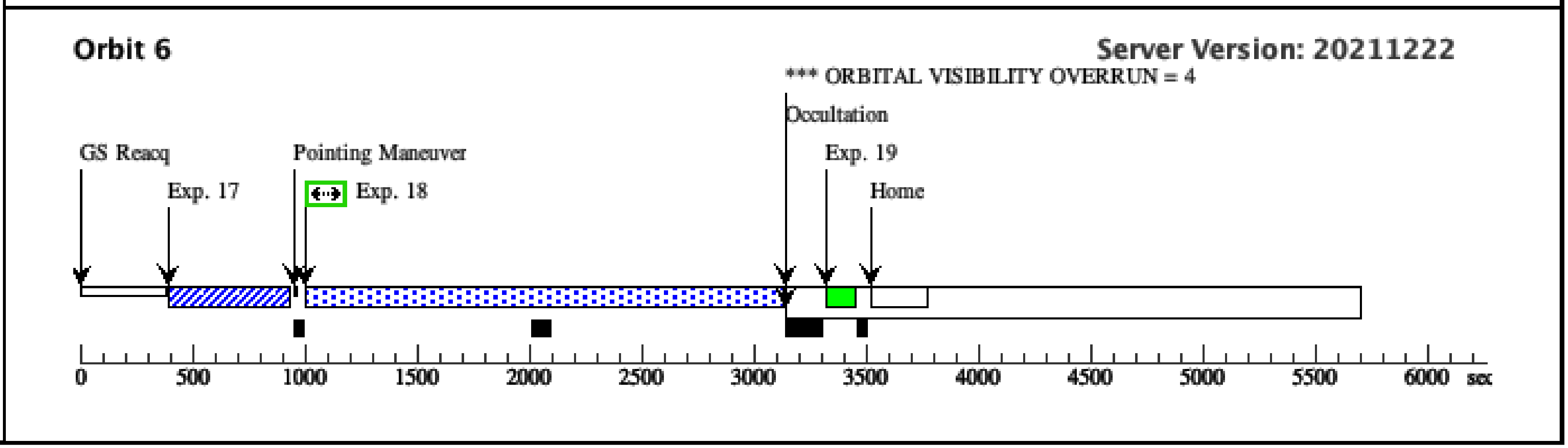
4500
5000
5500
6000
sec


Orbit 6
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 4
Occultation
GS Reacq
Pointing Maneuver
Exp. 19
Exp. 17
Exp. 18
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS Nov 09 (05), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 09-NOV-2017:09:50:00 AND 09-NOV-2017:16:00:00

Diagnostics

(STIS Nov 09 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Nov 09 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Nov 09 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

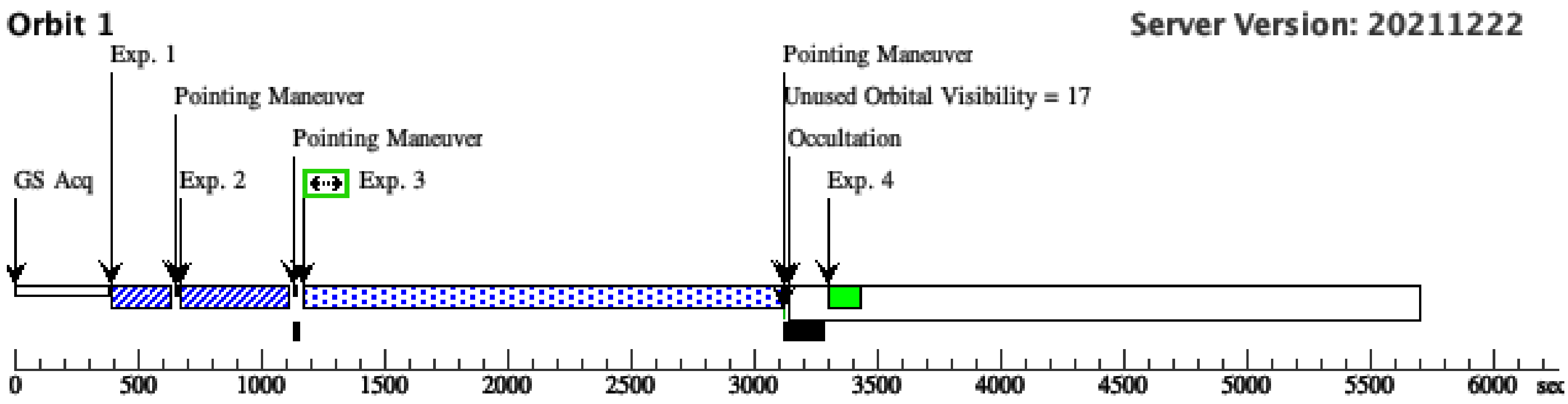
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

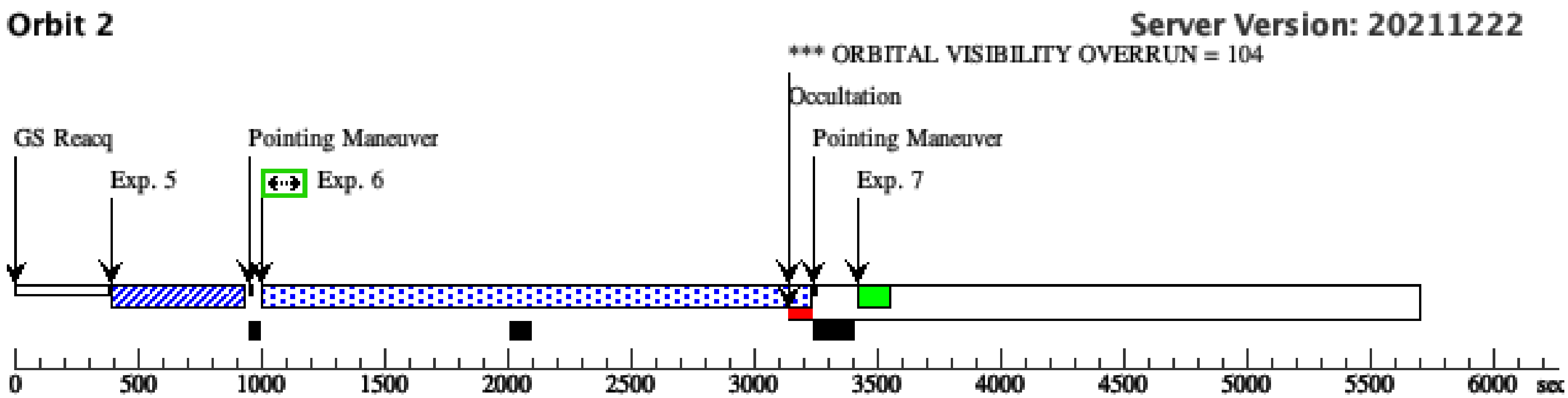
Exposures

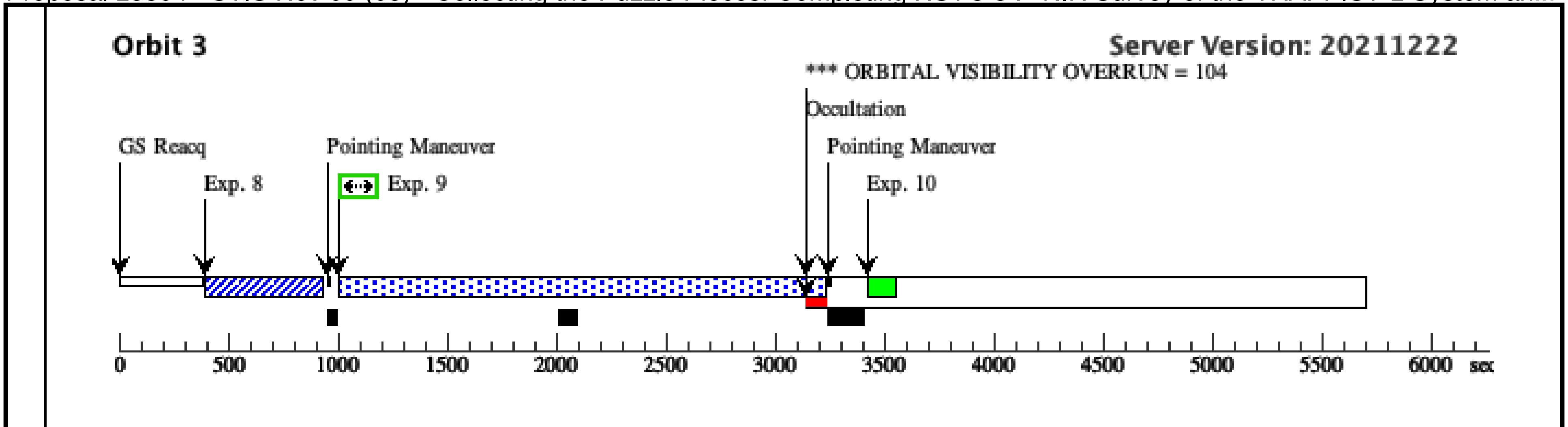
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Nov 09 (05)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Nov 09 (05)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Nov 09 (05)	1800 Secs (1800 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Nov 09 (05)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Nov 09 (05)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Nov 09 (05)	2100 Secs (2100 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Nov 09 (05)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Nov 09 (05)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Nov 09 (05)	2100 Secs (2100 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Nov 09 (05)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Nov 09 (05)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Nov 09 (05)	2100 Secs (2100 Secs) *[==>]*	***[4]***
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Nov 09 (05)	*[==>]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20211222
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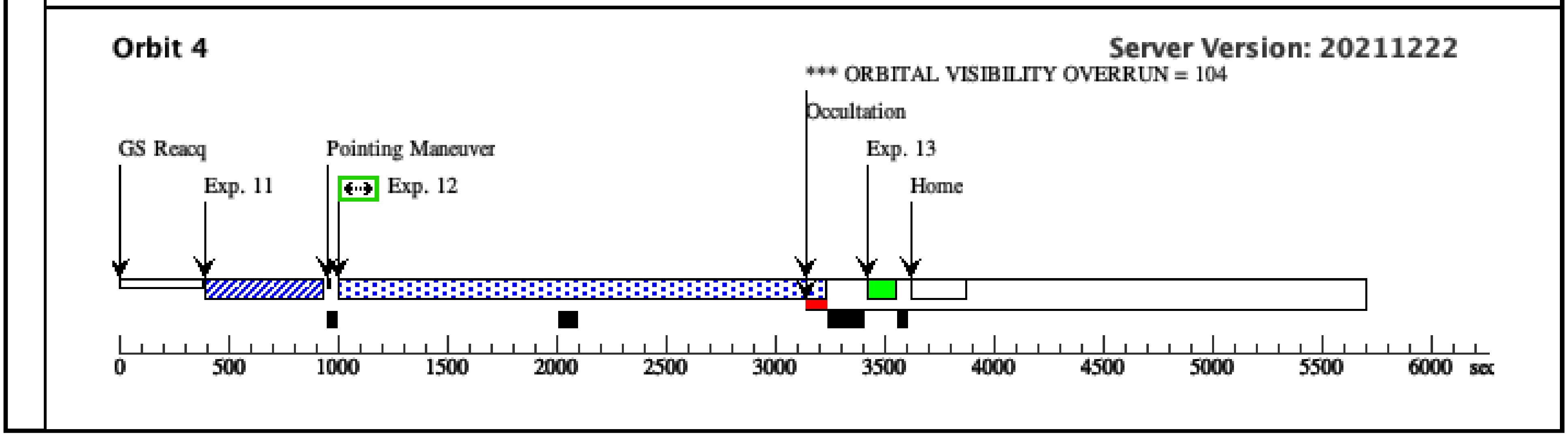
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec


Orbit 4
Server Version: 20211222
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Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS Nov 13 (08), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 13-NOV-2017:10:30:00 AND 13-NOV-2017:17:00:00

Diagnostics

(STIS Nov 13 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Nov 13 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS Nov 13 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

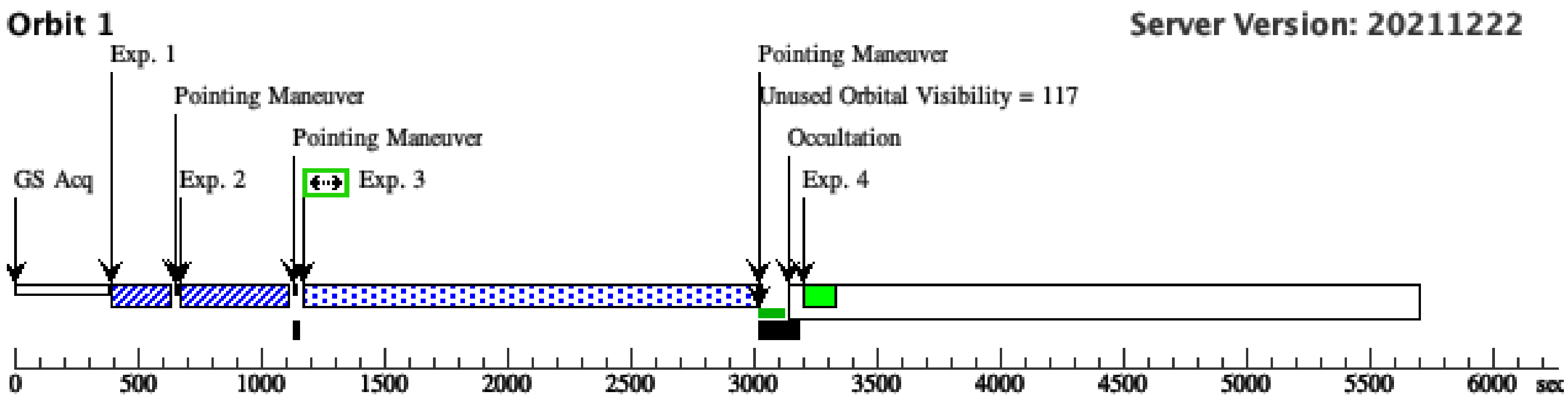
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

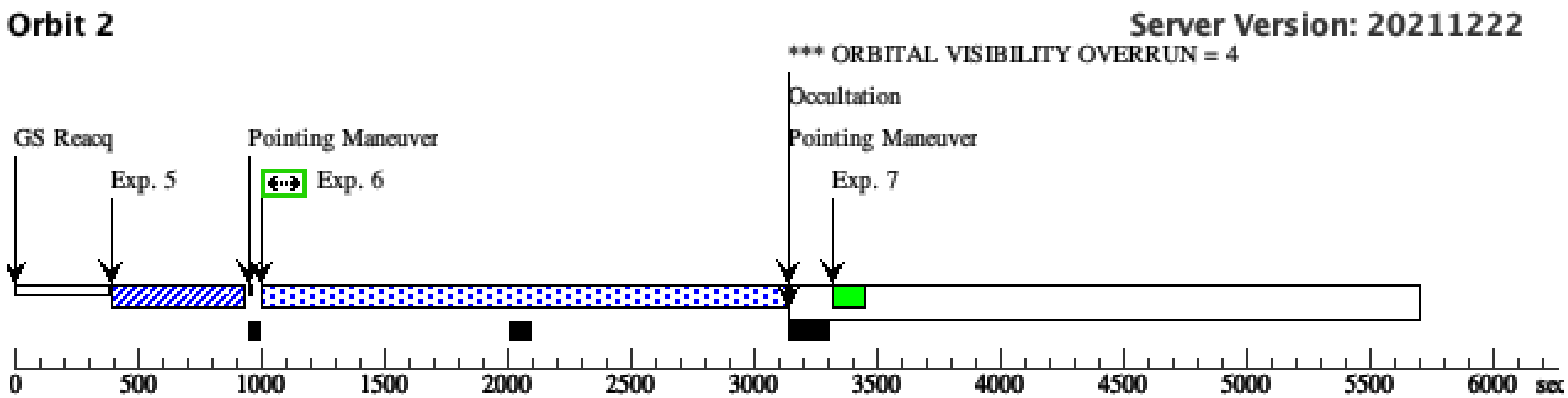
Exposures

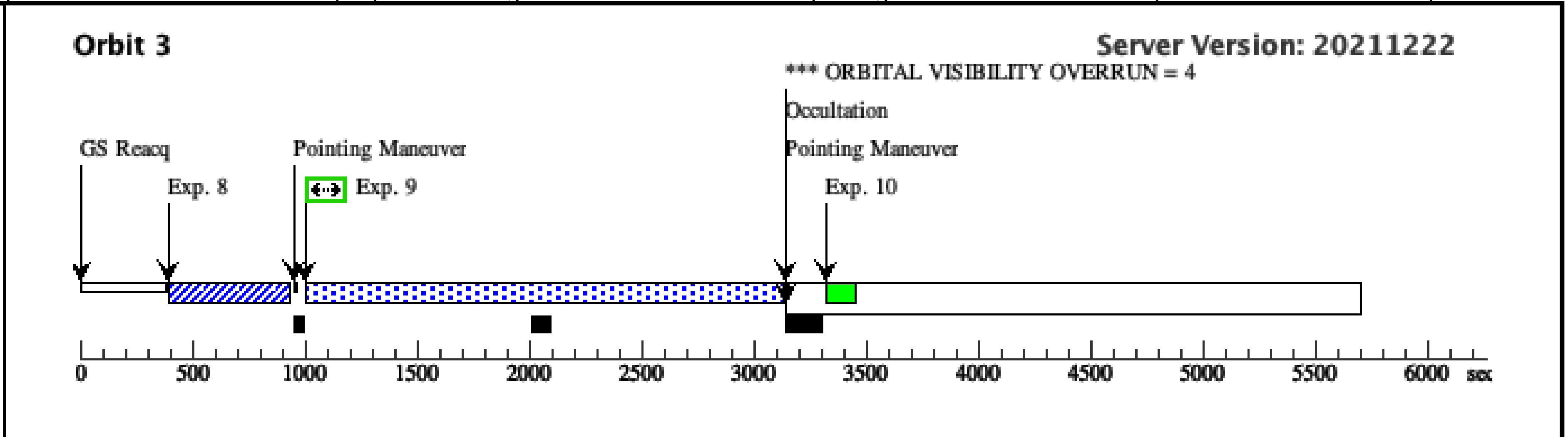
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS Nov 13 (08)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS Nov 13 (08)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS Nov 13 (08)	1700 Secs (1700 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS Nov 13 (08)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS Nov 13 (08)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS Nov 13 (08)	2000 Secs (2000 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS Nov 13 (08)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS Nov 13 (08)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS Nov 13 (08)	2000 Secs (2000 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS Nov 13 (08)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS Nov 13 (08)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS Nov 13 (08)	2000 Secs (2000 Secs) *[==>]*	***[4]***
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS Nov 13 (08)	*[==>]*	***[4]***

Orbit Structure



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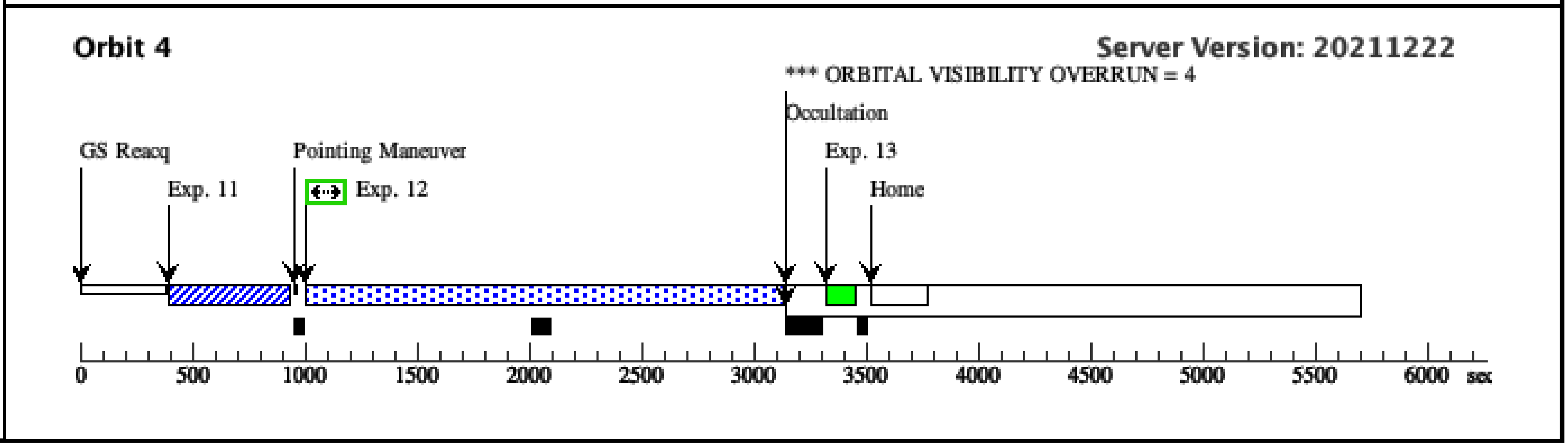
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 4
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 4
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS b1 (B1), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 1.510887062 D AND ZERO-PHASE HJD2457322.410224490

Diagnostics

(STIS b1 (B1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS b1 (B1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS b1 (B1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

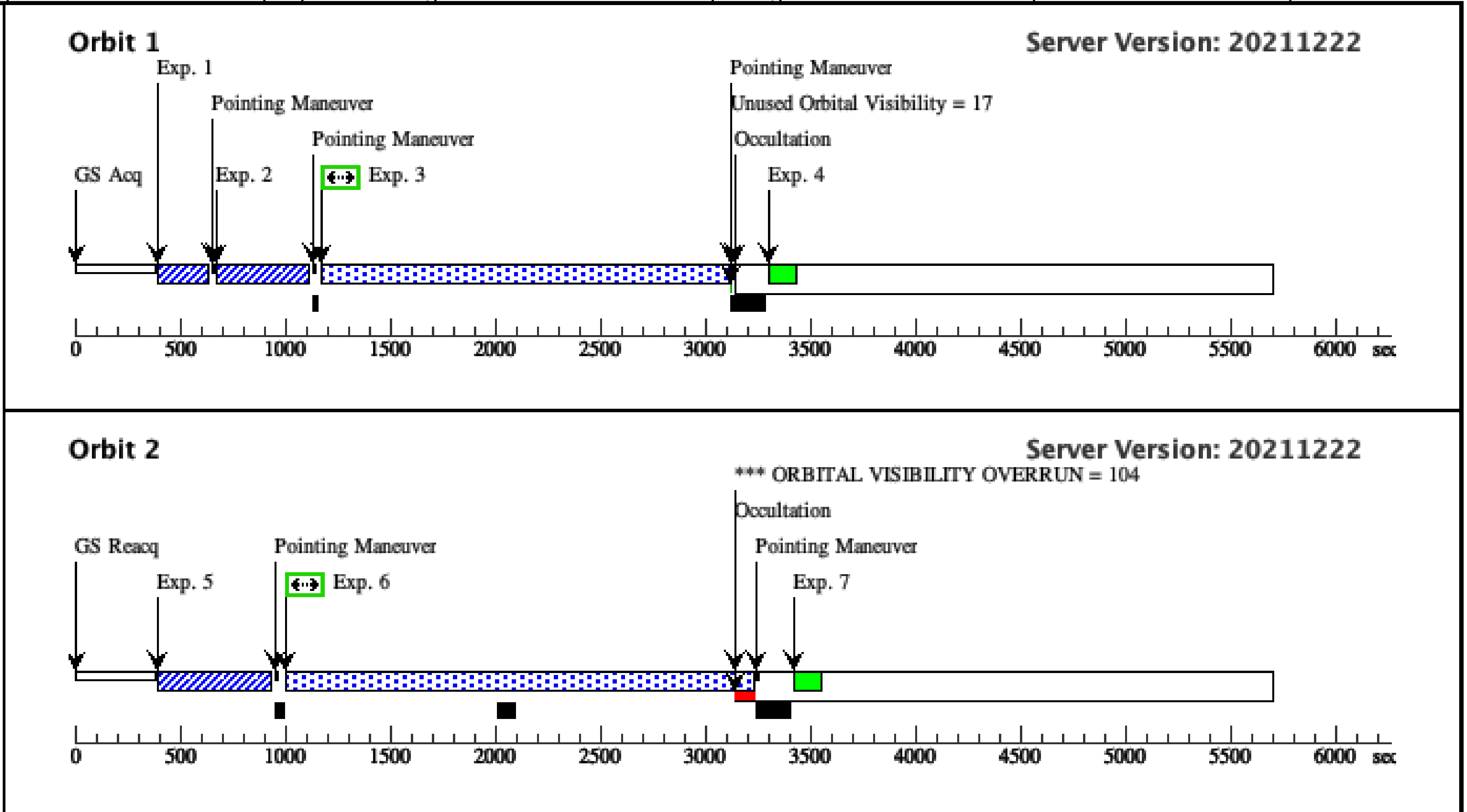
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

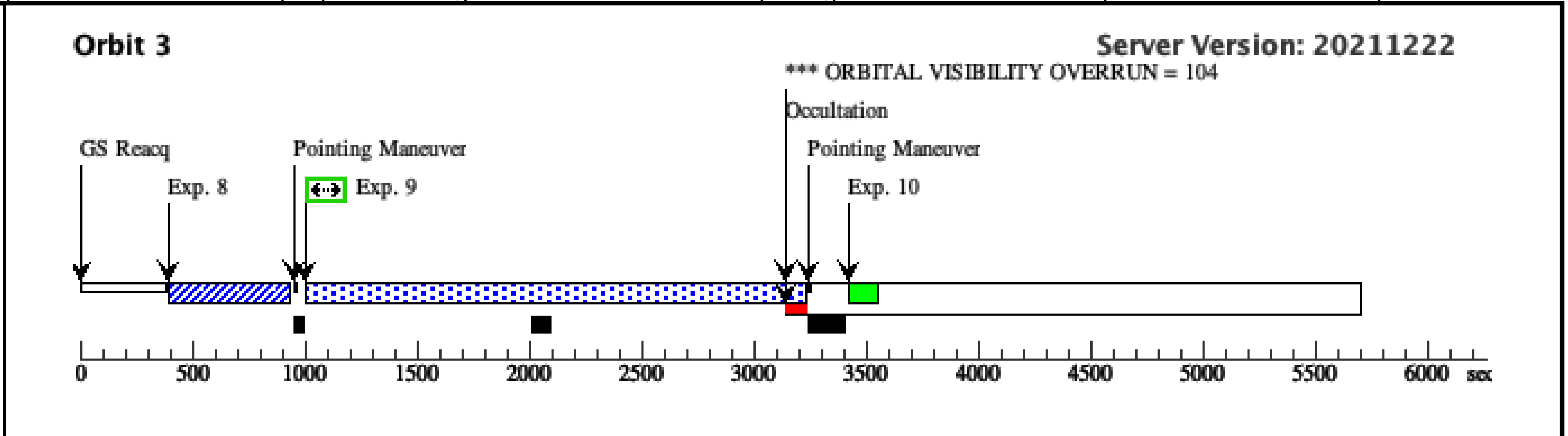
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.013	Sequence 1-4 Non-Int in STIS b1 (B1)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS b1 (B1)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS b1 (B1)	1800 Secs (1800 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS b1 (B1)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS b1 (B1)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS b1 (B1)	2100 Secs (2100 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS b1 (B1)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS b1 (B1)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS b1 (B1)	2100 Secs (2100 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS b1 (B1)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS b1 (B1)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS b1 (B1)	2100 Secs (2100 Secs) [==>]	[4]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS b1 (B1)	[==>]	[4]

Orbit Structure





Orbit 3
Server Version: 20211222
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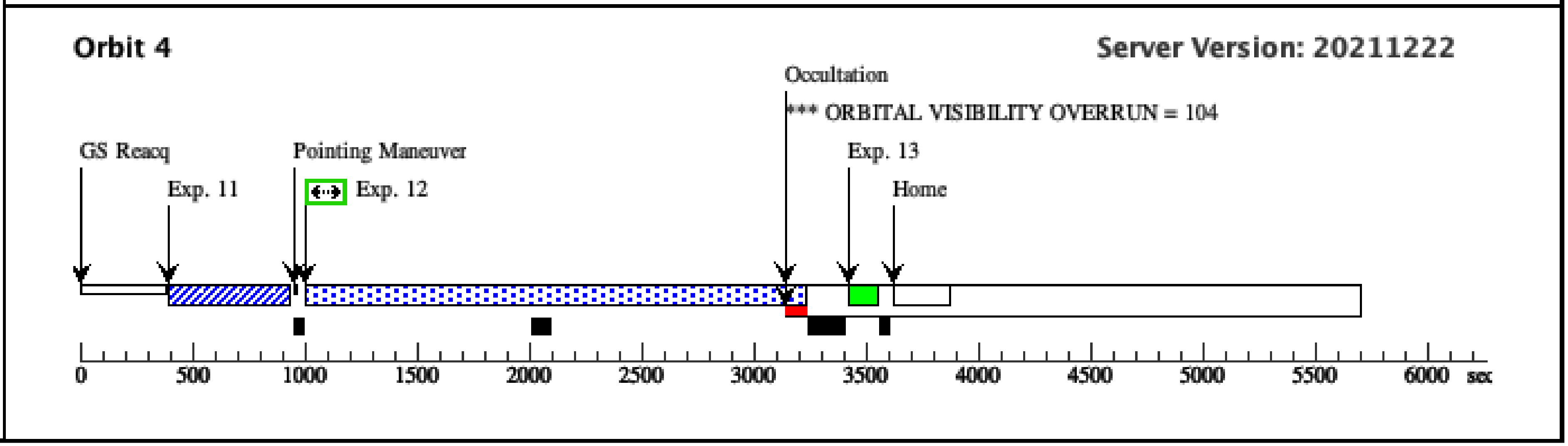
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec



Orbit 4
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS b2 (B2), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 1.510887062 D AND ZERO-PHASE HJD2457322.410224490

Diagnostics

(STIS b2 (B2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS b2 (B2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS b2 (B2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

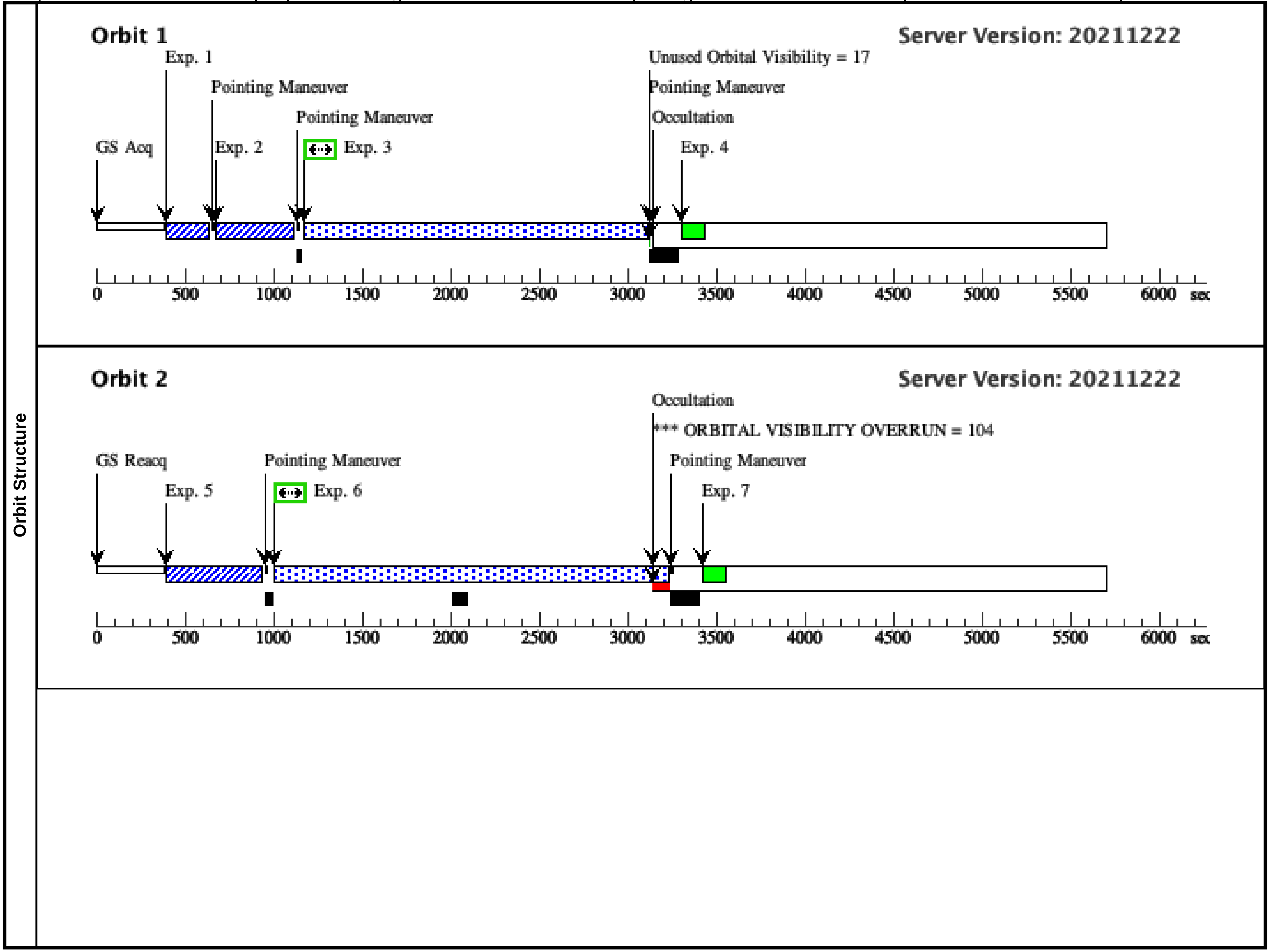
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.013	Sequence 1-4 Non-Int in STIS b2 (B2)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS b2 (B2)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS b2 (B2)	1800 Secs (1800 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS b2 (B2)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS b2 (B2)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS b2 (B2)	2100 Secs (2100 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS b2 (B2)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS b2 (B2)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS b2 (B2)	2100 Secs (2100 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS b2 (B2)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS b2 (B2)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS b2 (B2)	2100 Secs (2100 Secs) [==>]	[4]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS b2 (B2)	[==>]	[4]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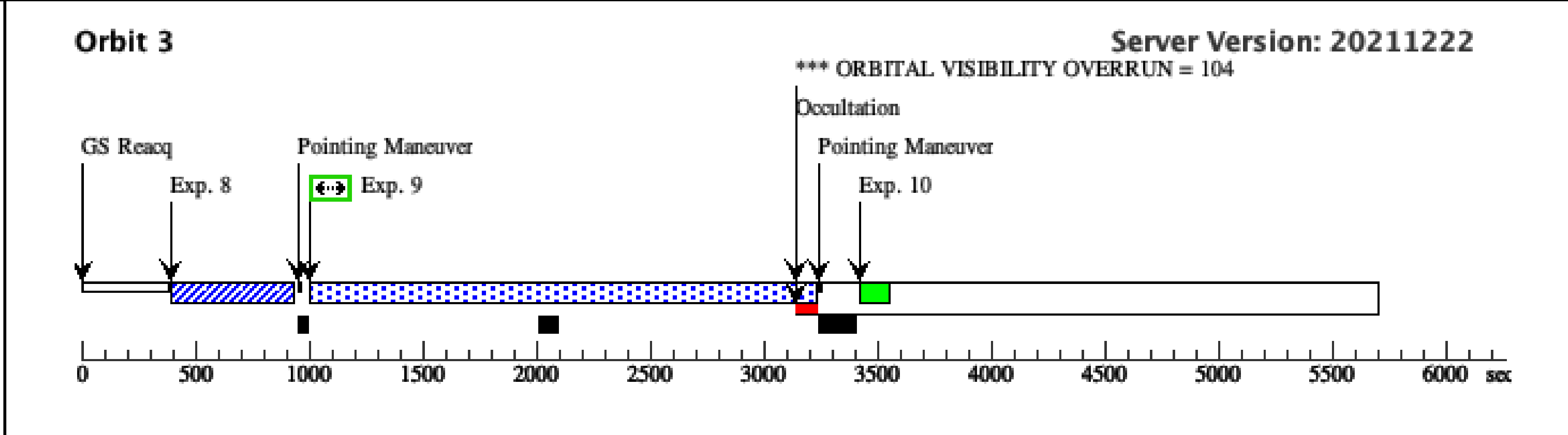
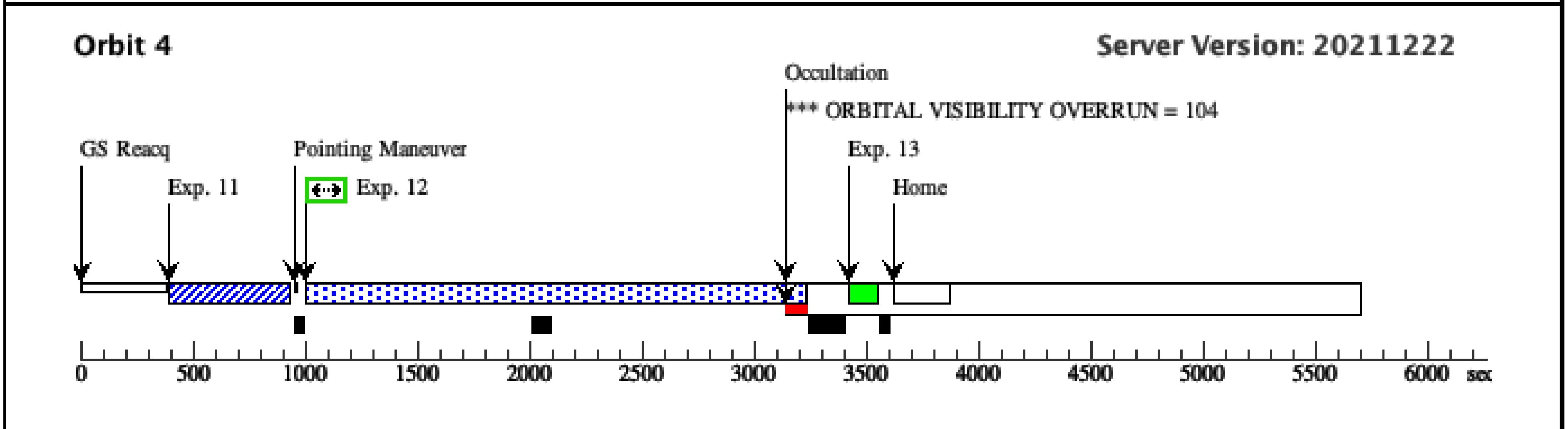
Server Version: 20211222
Exp. 1
Pointing Maneuver
Pointing Maneuver
GS Acq
Exp. 2
Exp. 3
Unused Orbital Visibility = 17
Pointing Maneuver
Occultation
Exp. 4
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec
Orbit 2
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 5
Exp. 6
Exp. 7
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec


Orbit 3
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 104
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec


Orbit 4
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS c1 (C1), completed — Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: BETWEEN 2018.253:22:00:00 AND 2018.253:23:00:00

Diagnostics

(STIS c1 (C1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS c1 (C1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS c1 (C1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

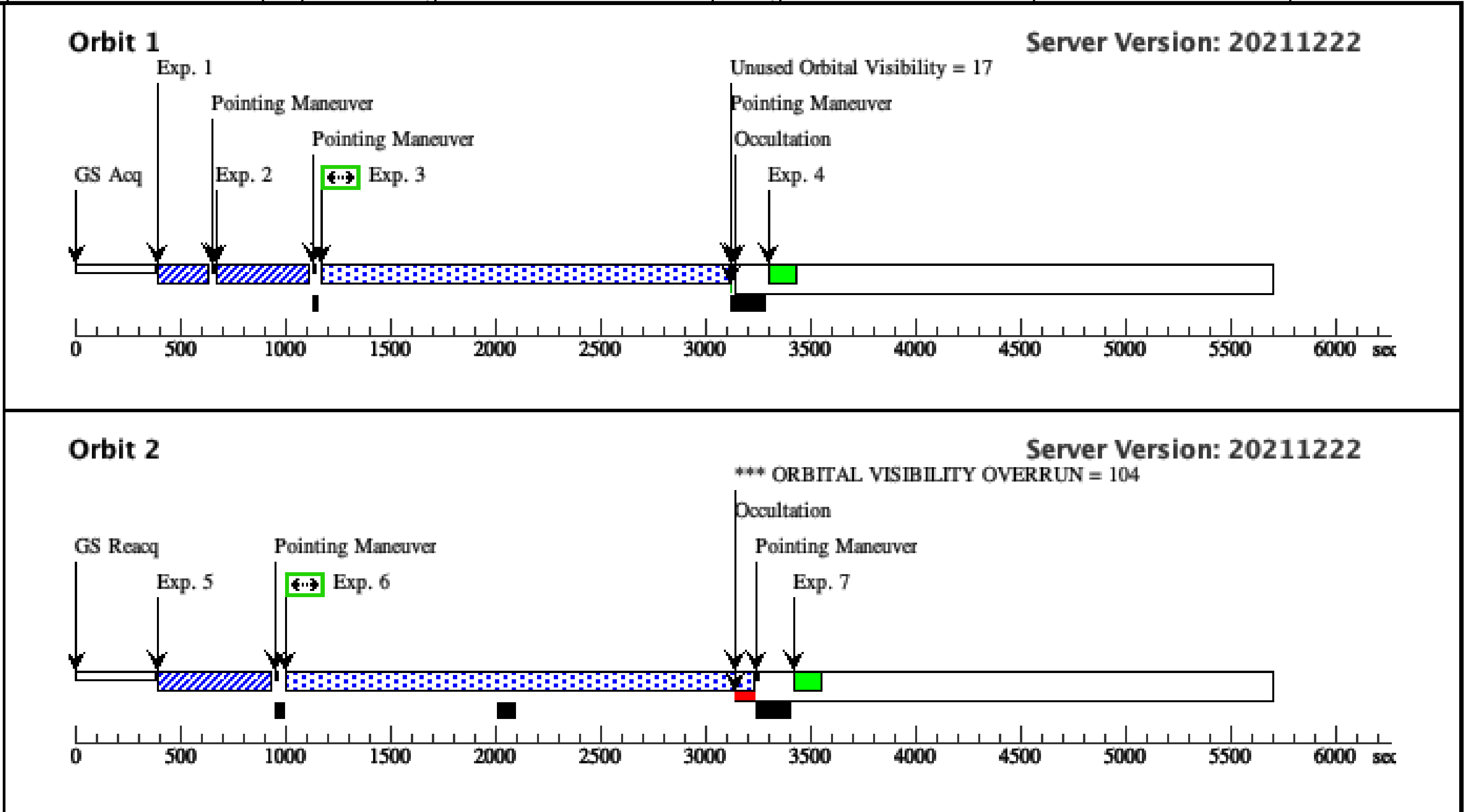
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

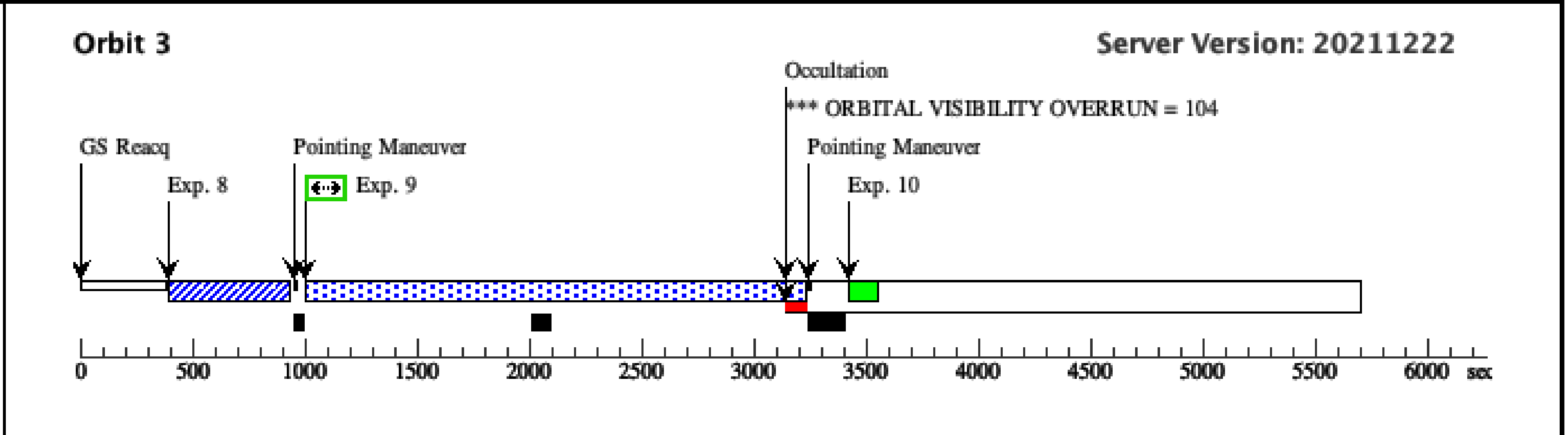
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS c1 (C1)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS c1 (C1)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS c1 (C1)	1800 Secs (1800 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS c1 (C1)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS c1 (C1)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS c1 (C1)	2100 Secs (2100 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS c1 (C1)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS c1 (C1)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS c1 (C1)	2100 Secs (2100 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS c1 (C1)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS c1 (C1)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS c1 (C1)	2100 Secs (2100 Secs) [==>]	[4]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS c1 (C1)	[==>]	[4]

Orbit Structure




Orbit 3
Server Version: 20211222
Occultation
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GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
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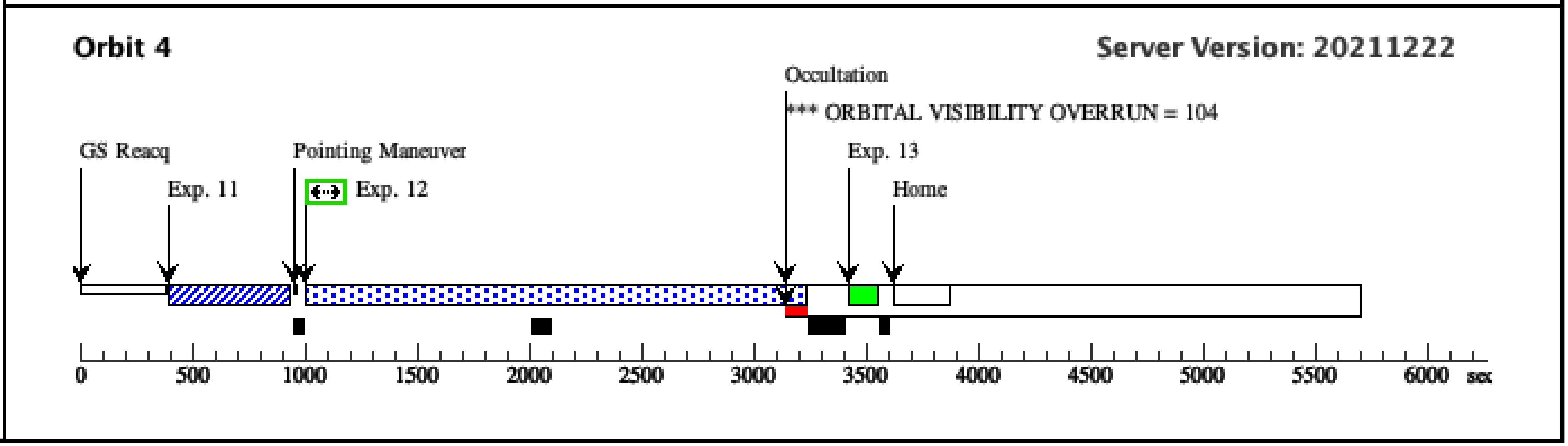

Orbit 4
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS c2 (C2), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 2.421787216 D AND ZERO-PHASE HJD2457282.706940840

Diagnostics

(STIS c2 (C2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS c2 (C2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS c2 (C2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

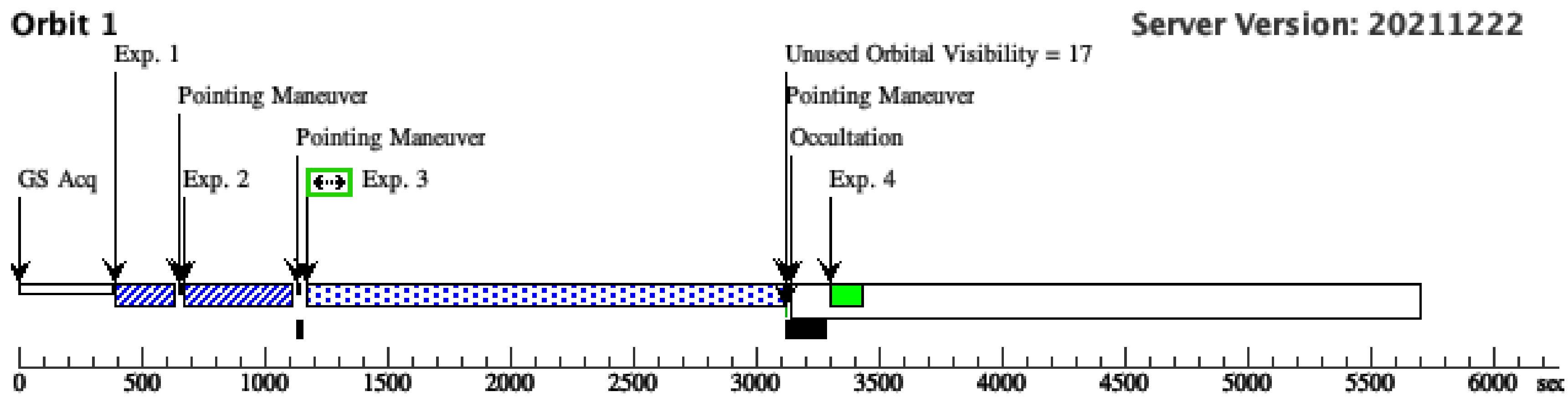
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

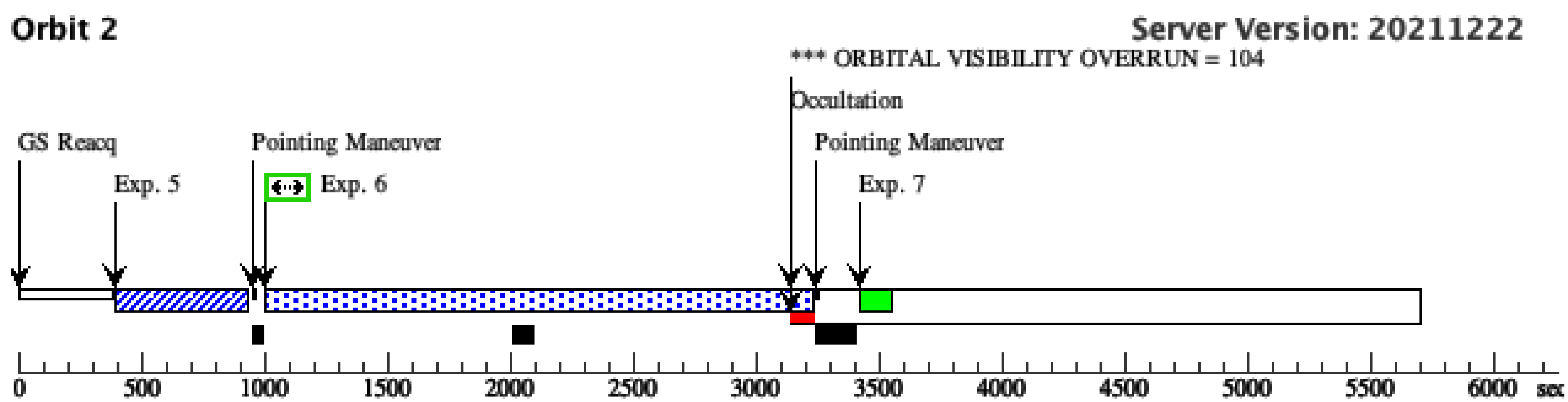
Exposures

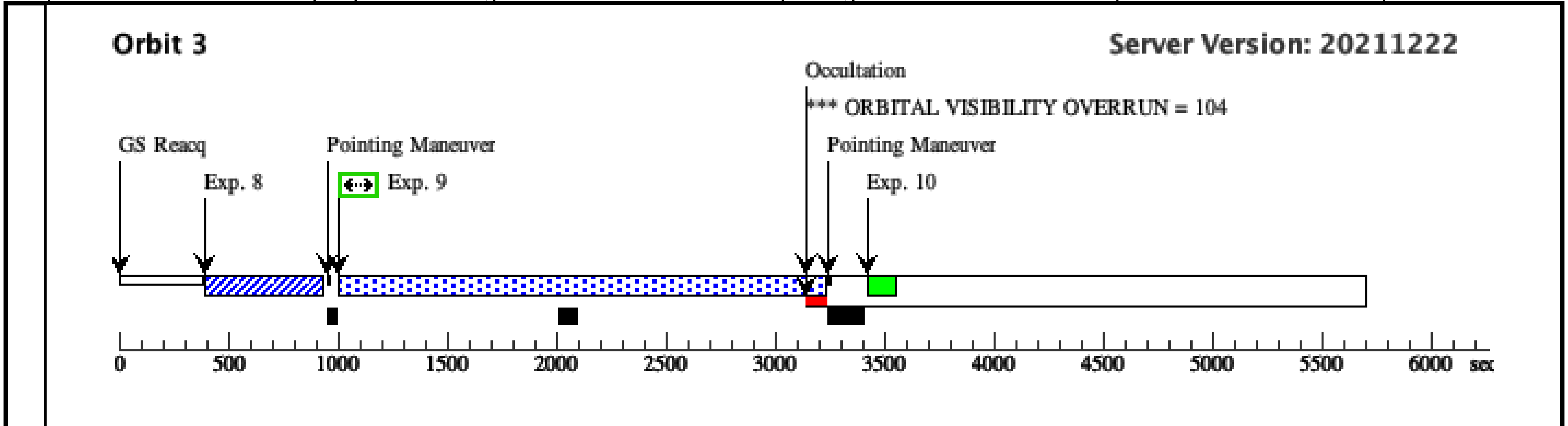
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.009	Sequence 1-4 Non-Int in STIS c2 (C2)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS c2 (C2)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS c2 (C2)	1800 Secs (1800 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS c2 (C2)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS c2 (C2)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS c2 (C2)	2100 Secs (2100 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS c2 (C2)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS c2 (C2)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS c2 (C2)	2100 Secs (2100 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS c2 (C2)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS c2 (C2)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

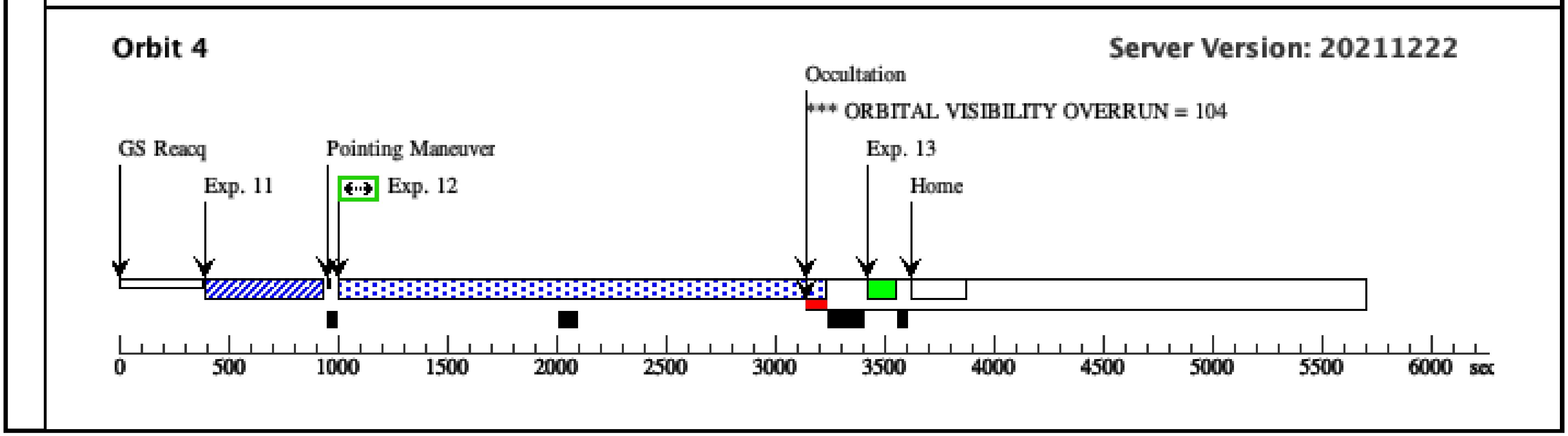
	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS c2 (C2)	2100 Secs (2100 Secs) *[==>]*	***[4]***
		Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.							
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS c2 (C2)	*[==>]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS c3 (C3), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; Period 2.421787216 D AND ZERO-PHASE HJD2457282.706940840

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

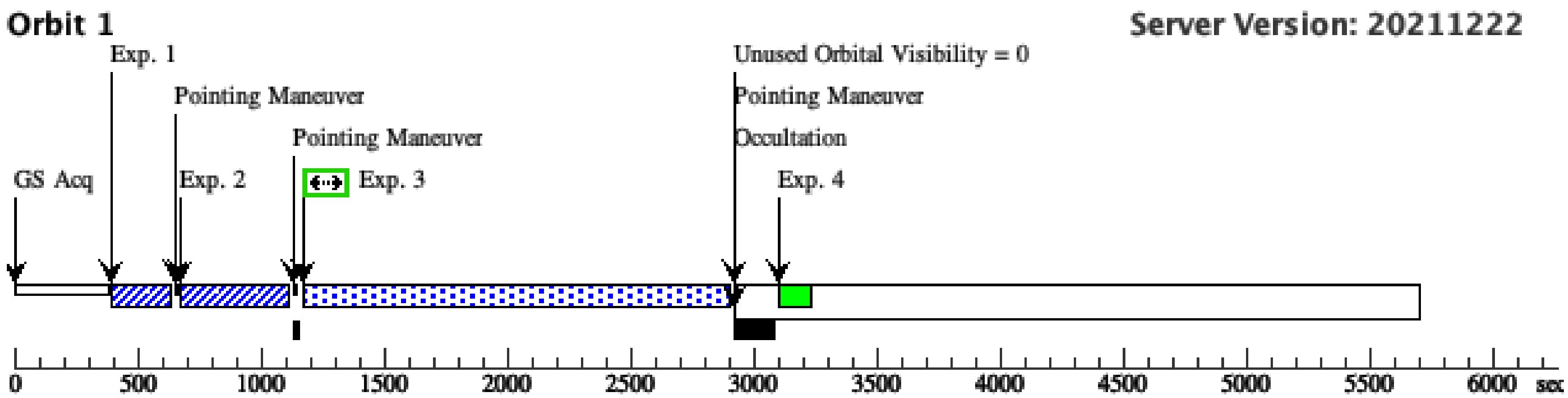
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

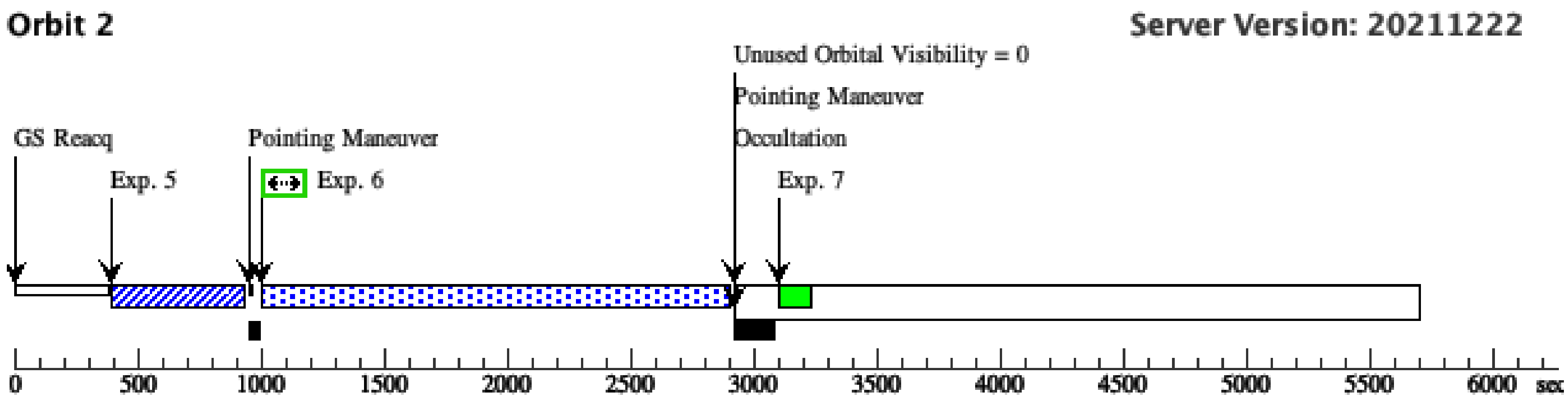
Exposures

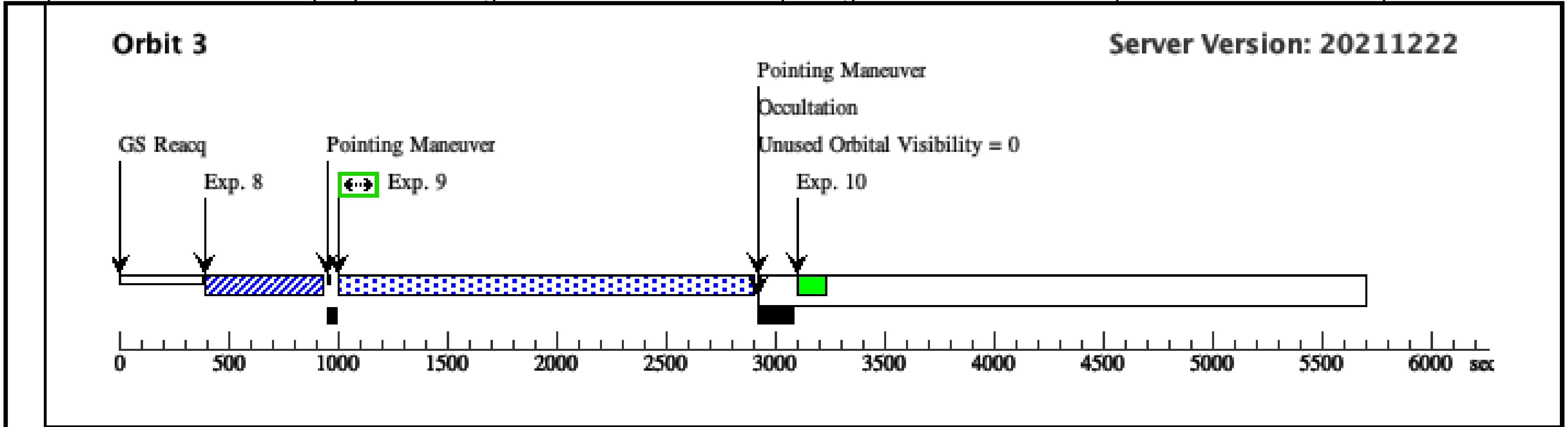
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.009	Sequence 1-4 Non-Int in STIS c3 (C3)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS c3 (C3)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS c3 (C3)	1800 Secs (1594 Secs) [==>1594.0 Secs]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS c3 (C3)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS c3 (C3)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS c3 (C3)	2080 Secs (1773 Secs) [==>1773.0 Secs]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS c3 (C3)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS c3 (C3)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS c3 (C3)	2080 Secs (1773 Secs) [==>1773.0 Secs]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS c3 (C3)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS c3 (C3)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS c3 (C3)	2080 Secs (1773 Secs) *[==>1773.0 Secs]*	***[4]***
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS c3 (C3)	*[==>]*	***[4]***

Orbit Structure



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Pointing Maneuver
Occultation
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GS Reacq
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
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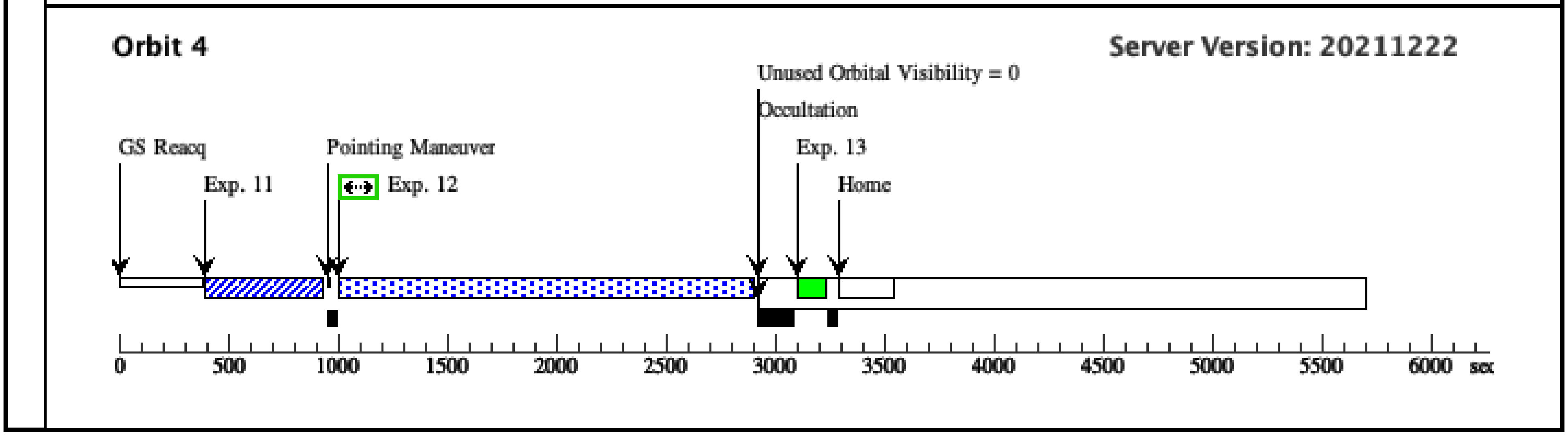

Orbit 4
Server Version: 20211222
Unused Orbital Visibility = 0
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS d1 (D1), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 4.049643595 D AND ZERO-PHASE HJD2457670.055702060; VISIBILITY INTERVAL 52.8 M

Diagnostics

(STIS d1 (D1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS d1 (D1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS d1 (D1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

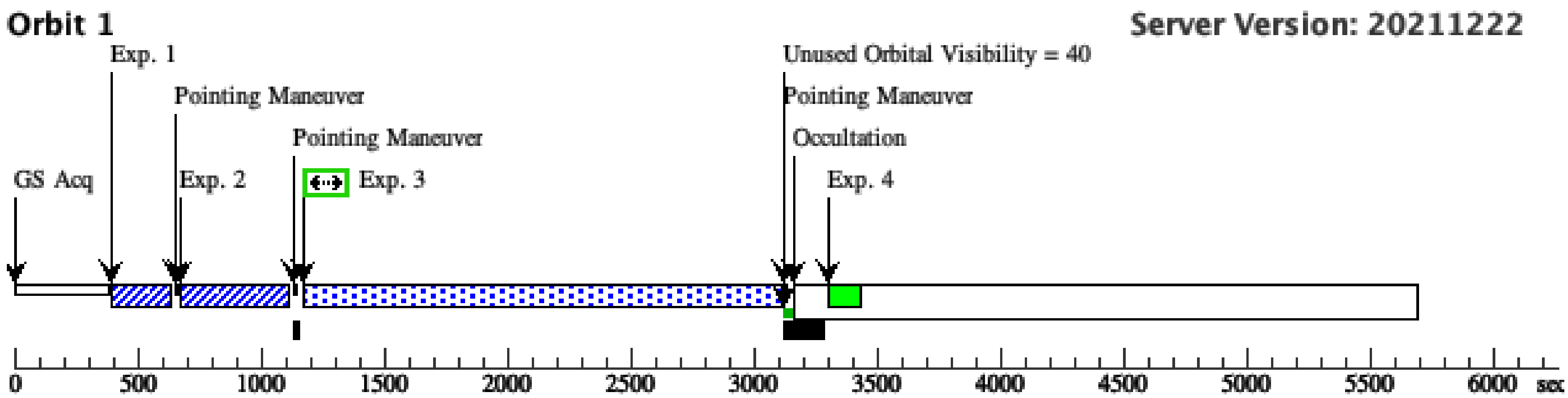
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

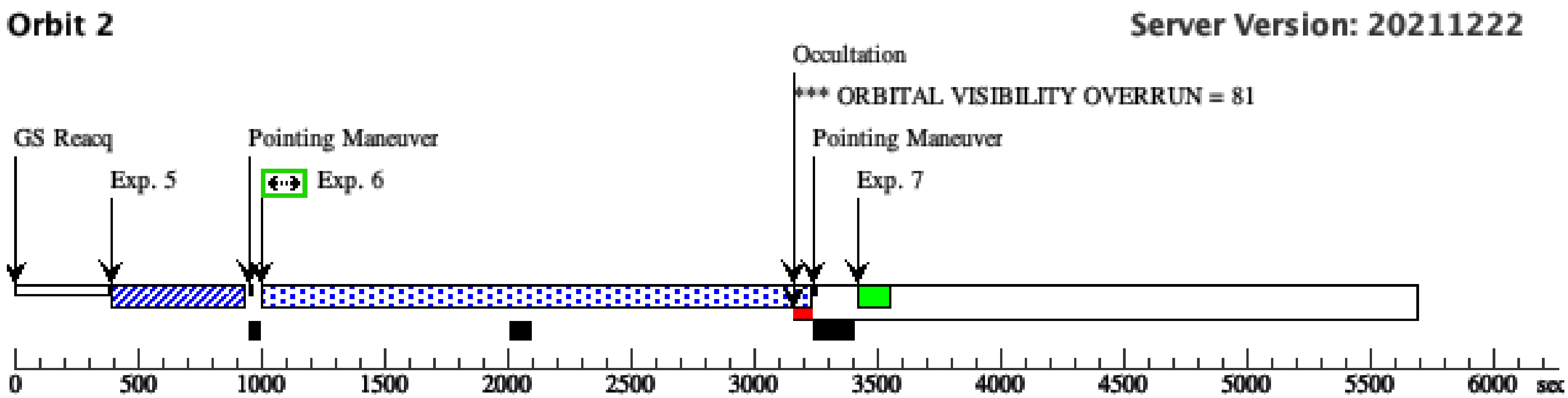
Exposures

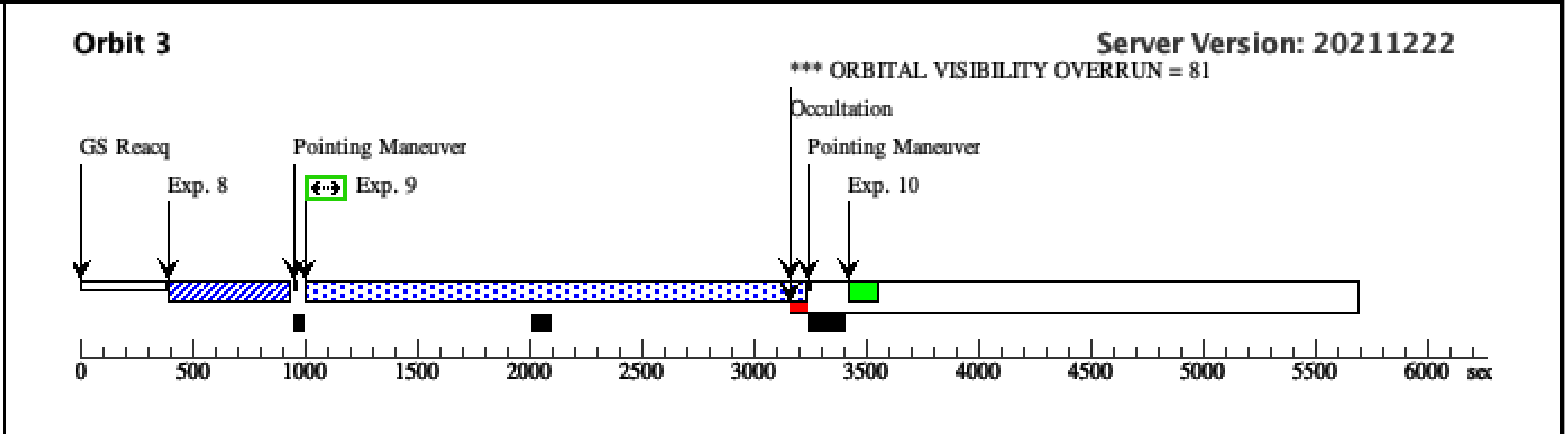
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.005	Sequence 1-4 Non-Int in STIS d1 (D1)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS d1 (D1)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS d1 (D1)	1800 Secs (1800 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS d1 (D1)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS d1 (D1)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS d1 (D1)	2100 Secs (2100 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS d1 (D1)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS d1 (D1)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS d1 (D1)	2100 Secs (2100 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS d1 (D1)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS d1 (D1)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS d1 (D1)	2100 Secs (2100 Secs)		
							[==>]		***[4]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS d1 (D1)	*[==>]*		***[4]***

Orbit Structure



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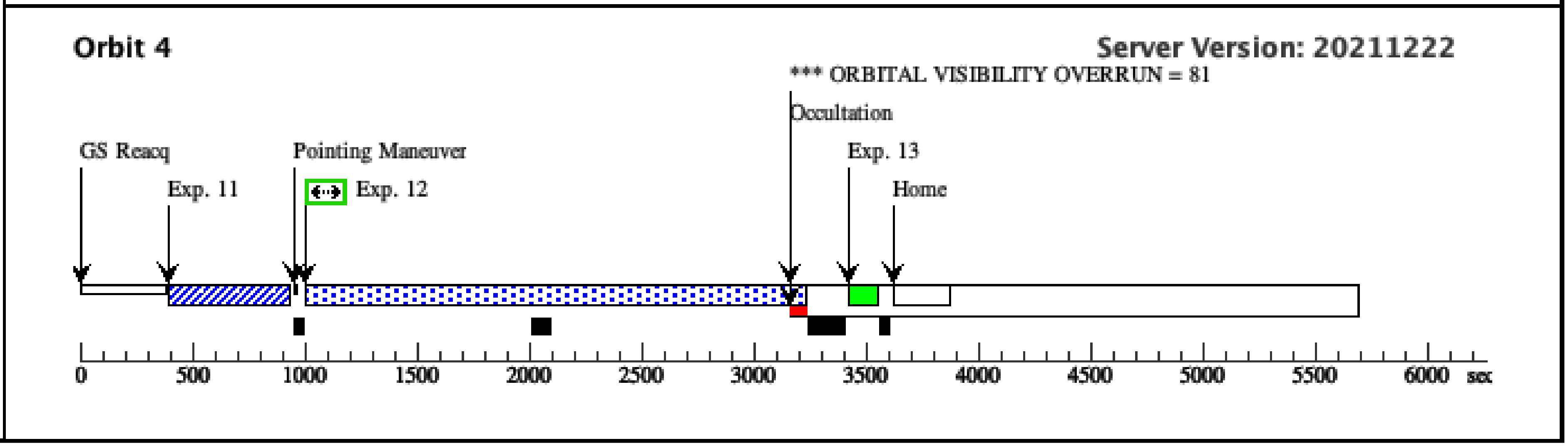
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 81
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS e1 (E1), completed Mon May 23 13:02:02 GMT 2022

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 30%; Period 6.099483074 D AND ZERO-PHASE HJD2457660.265088220

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

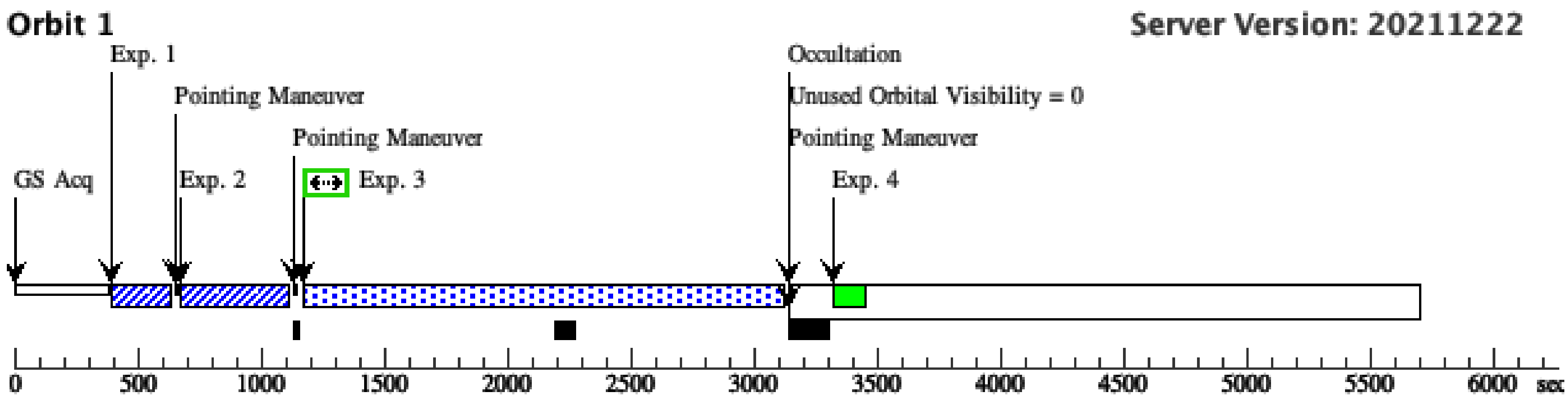
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

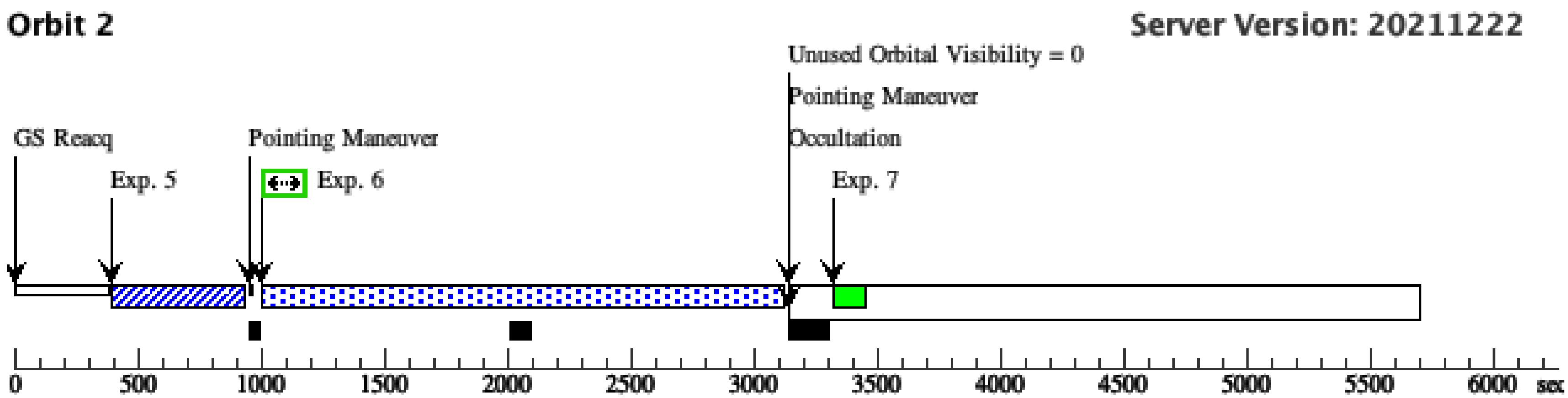
Exposures

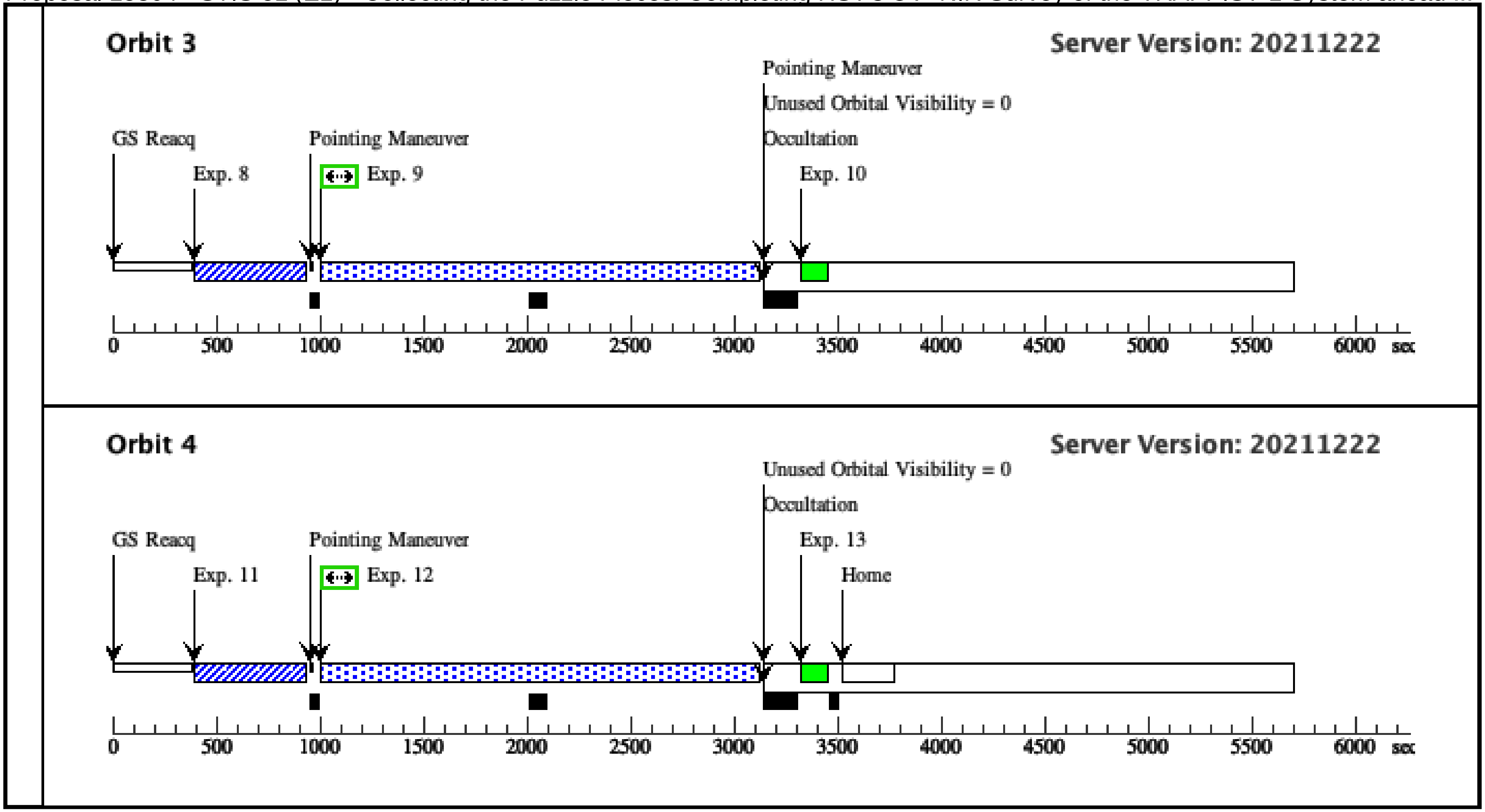
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.0035	Sequence 1-4 Non-Int in STIS e1 (E1)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS e1 (E1)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS e1 (E1)	1800 Secs (1817 Secs) [==>1817.0 Secs]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS e1 (E1)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS e1 (E1)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS e1 (E1)	2100 Secs (1996 Secs) [==>1996.0 Secs]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS e1 (E1)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS e1 (E1)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS e1 (E1)	2100 Secs (1996 Secs) [==>1996.0 Secs]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS e1 (E1)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS e1 (E1)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS e1 (E1)	2100 Secs (1996 Secs) *[==>1996.0 Secs]*	***[4]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS e1 (E1)	*[==>]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20211222
Pointing Maneuver
Unused Orbital Visibility = 0
Occultation
GS Reacq
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec
Orbit 4
Server Version: 20211222
Unused Orbital Visibility = 0
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS e2 (E2), failed Mon May 23 13:02:03 GMT 2022

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 2021.299:23:00:00 AND 2021.300:00:00:00

Comments: Original requirements
Period= 6.099483074
Zero Phase= 2457660.265088220
Phase= 0 to 0.0035

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

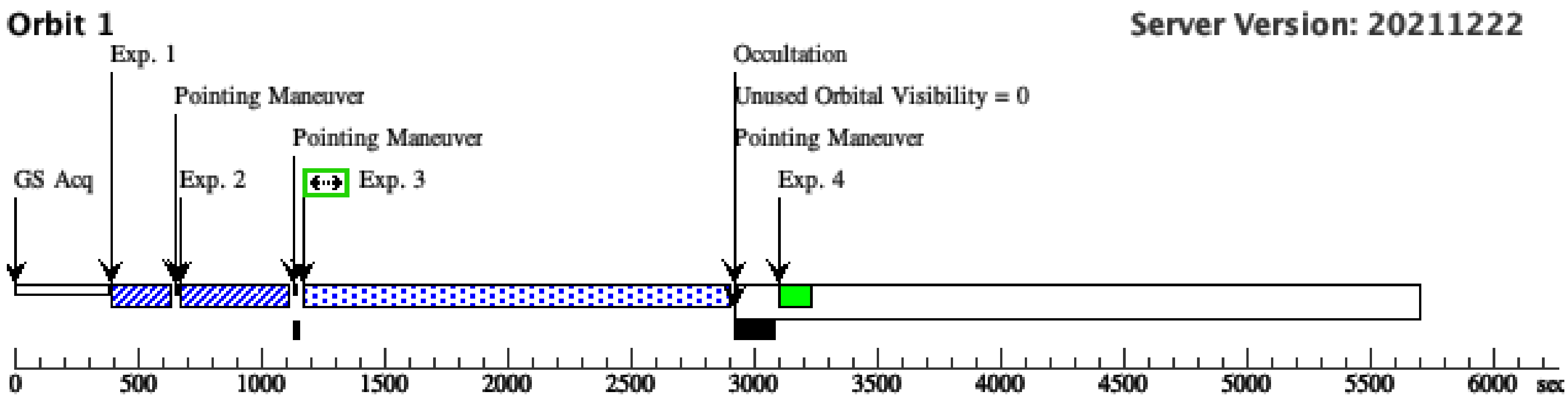
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

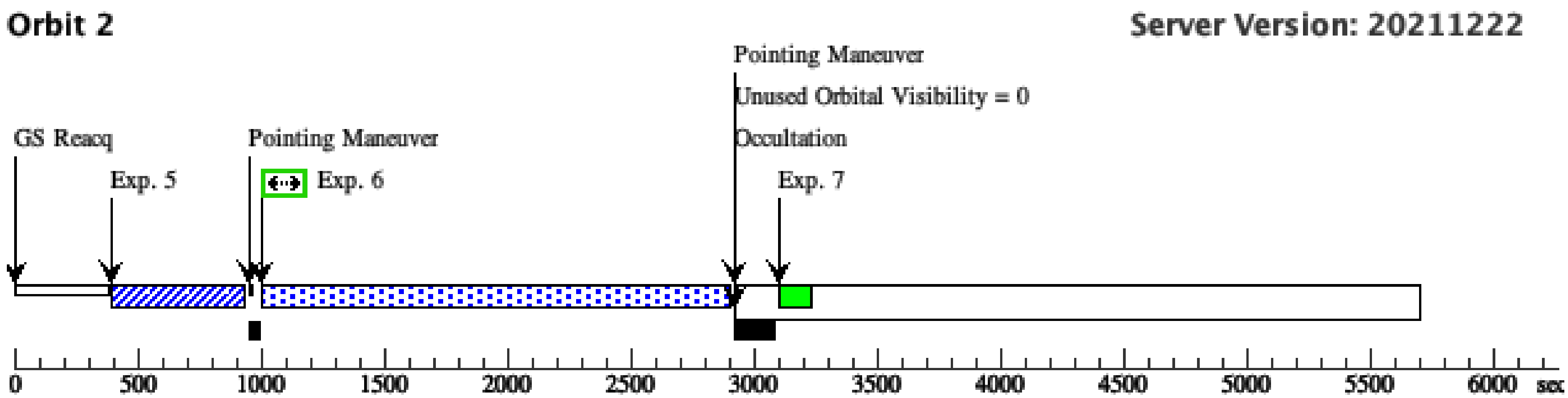
Exposures

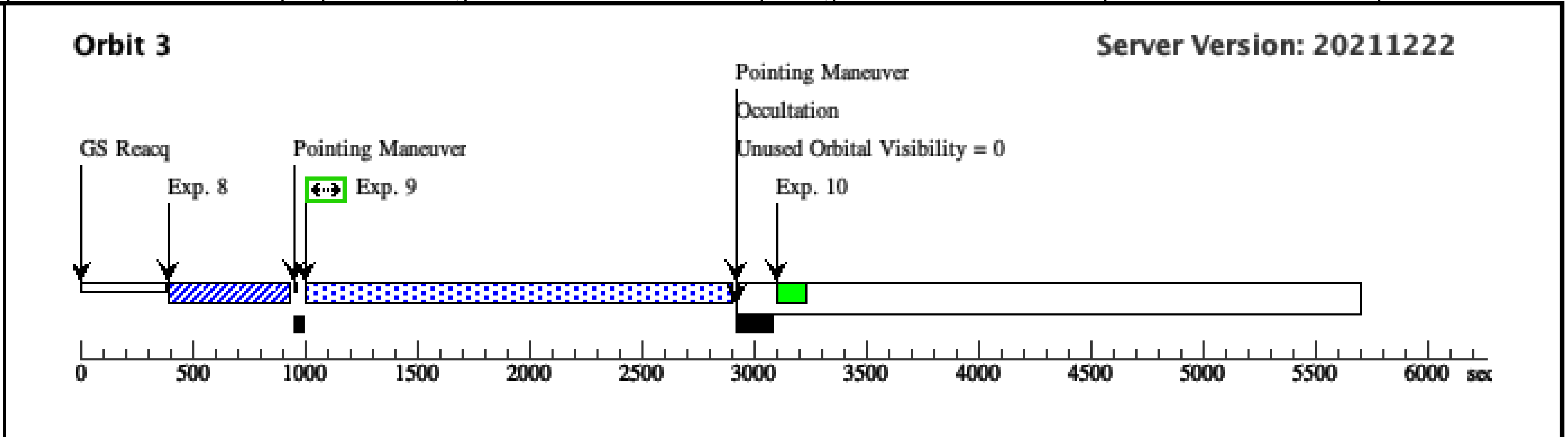
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS e2 (E2)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS e2 (E2)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS e2 (E2)	1594 Secs (1594 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS e2 (E2)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS e2 (E2)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS e2 (E2)	1773 Secs (1773 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS e2 (E2)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS e2 (E2)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS e2 (E2)	1773 Secs (1773 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS e2 (E2)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS e2 (E2)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS e2 (E2)	1773 Secs (1773 Secs) [==>]	[4]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS e2 (E2)	[==>]	[4]

Orbit Structure



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Pointing Maneuver
Occultation
Unused Orbital Visibility = 0
GS Reacq
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
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1000
1500
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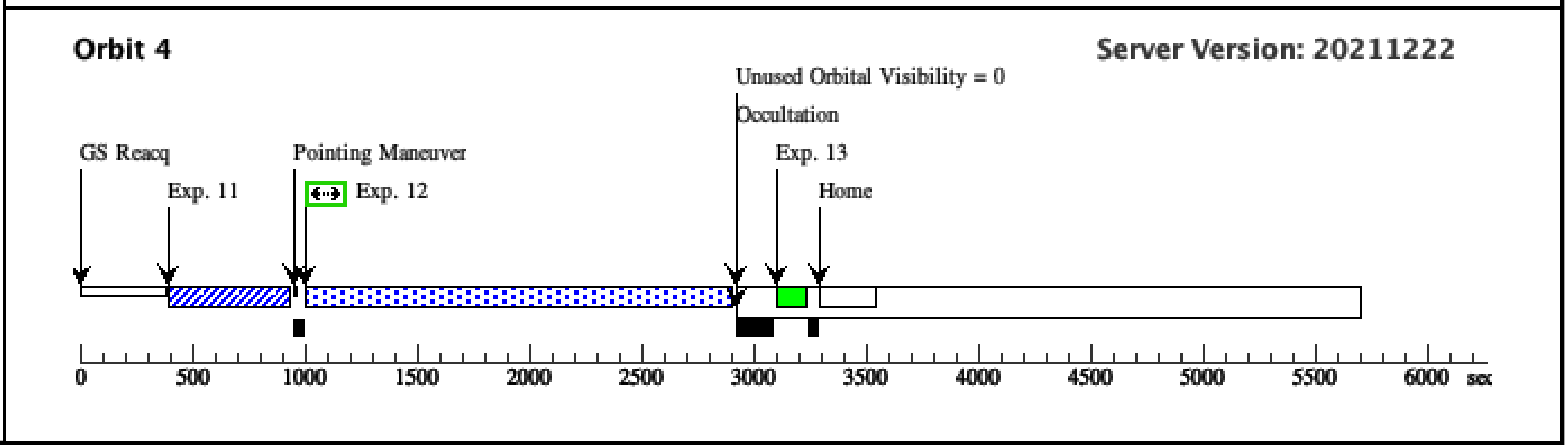
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20211222
Unused Orbital Visibility = 0
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
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5000
5500
6000
sec

Visit

Proposal 15304, STIS e2 (E3), implementation Mon May 23 13:02:03 GMT 2022

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 2022.203:08:00:00 AND 2022.203:09:00:00

Comments: Original requirements
Period= 6.099483074
Zero Phase= 2457660.265088220
Phase= 0 to 0.0035

HOPR repeat of visit E2.
BETWEEN being used to meet the phase requirement.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

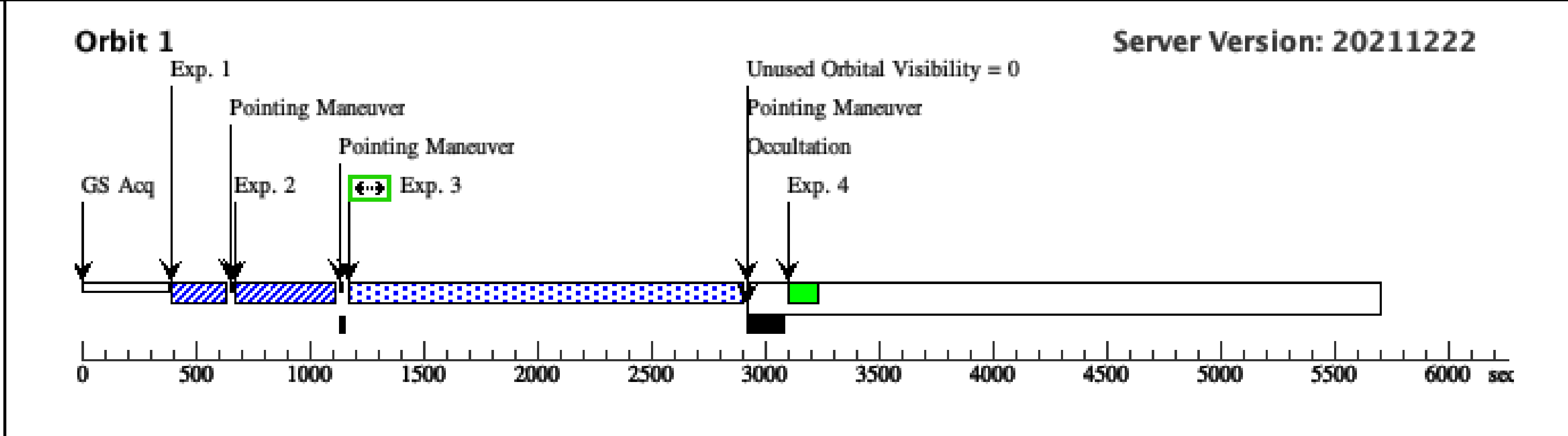
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

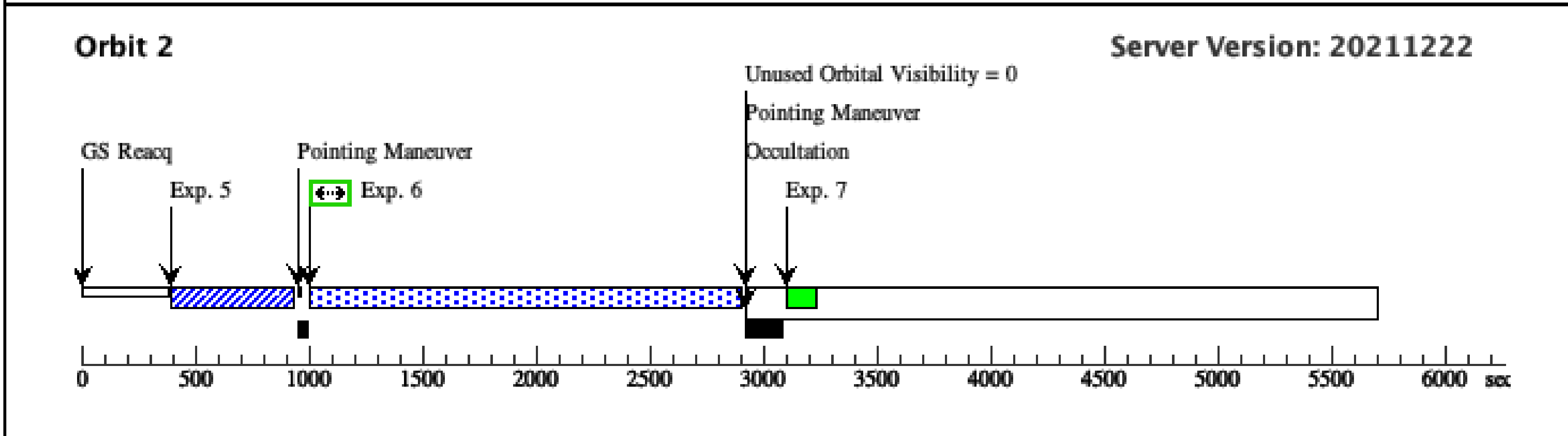
Exposures

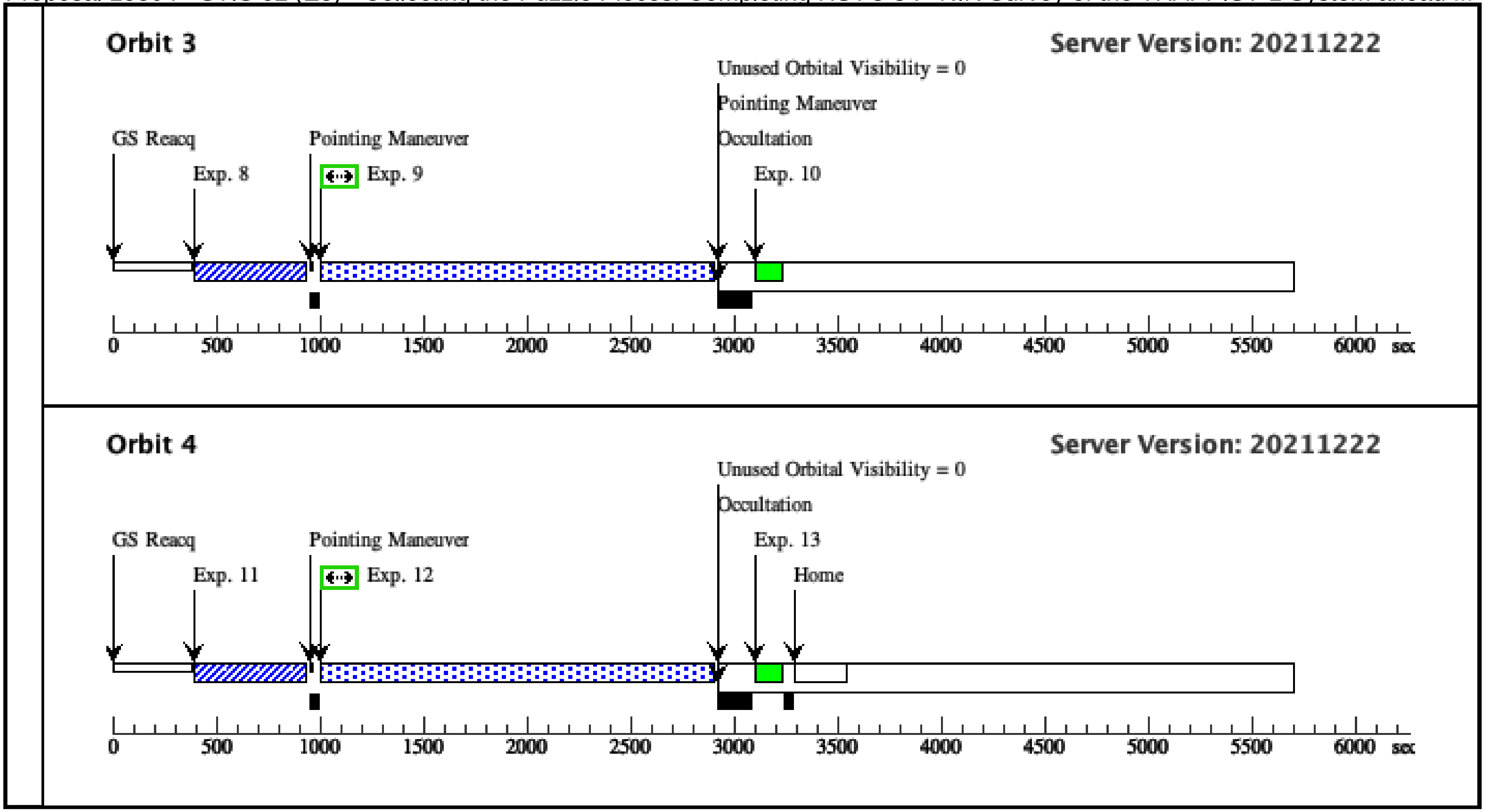
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS e2 (E3)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS e2 (E3)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS e2 (E3)	1594 Secs (1594 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS e2 (E3)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS e2 (E3)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS e2 (E3)	1773 Secs (1773 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS e2 (E3)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS e2 (E3)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS e2 (E3)	1773 Secs (1773 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS e2 (E3)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS e2 (E3)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS e2 (E3)	1773 Secs (1773 Secs) [==>]	[4]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS e2 (E3)	[==>]	[4]

Orbit Structure






Orbit 3
Server Version: 20211222
Unused Orbital Visibility = 0
Pointing Maneuver
Occultation
GS Reacq
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec
Orbit 4
Server Version: 20211222
Unused Orbital Visibility = 0
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS f1 (F1), completed Mon May 23 13:02:03 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 9.206318826 D AND ZERO-PHASE HJD2457671.276243970

Diagnostics

(STIS f1 (F1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS f1 (F1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(STIS f1 (F1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

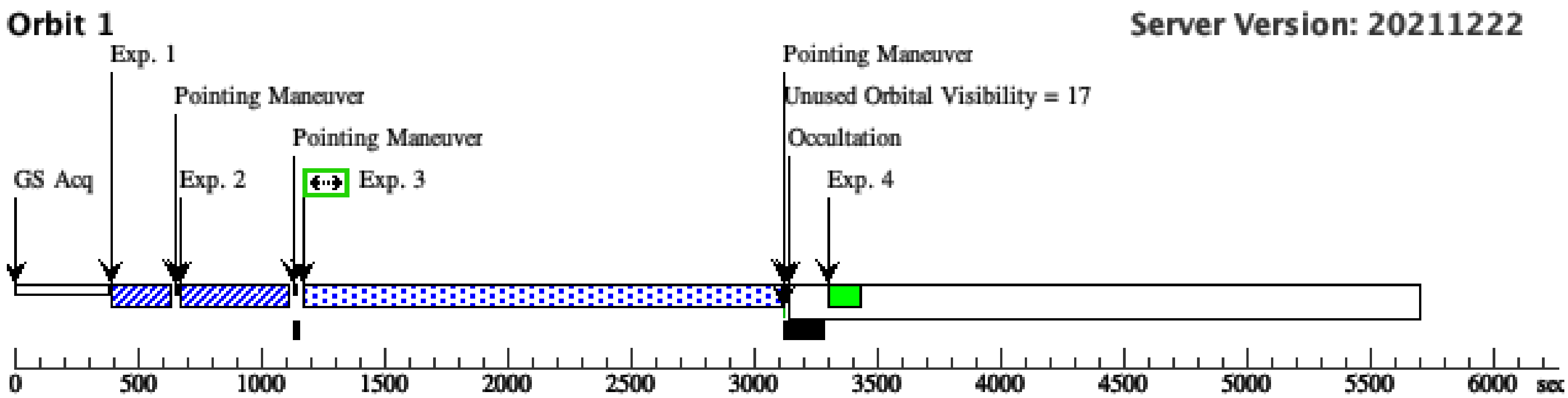
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

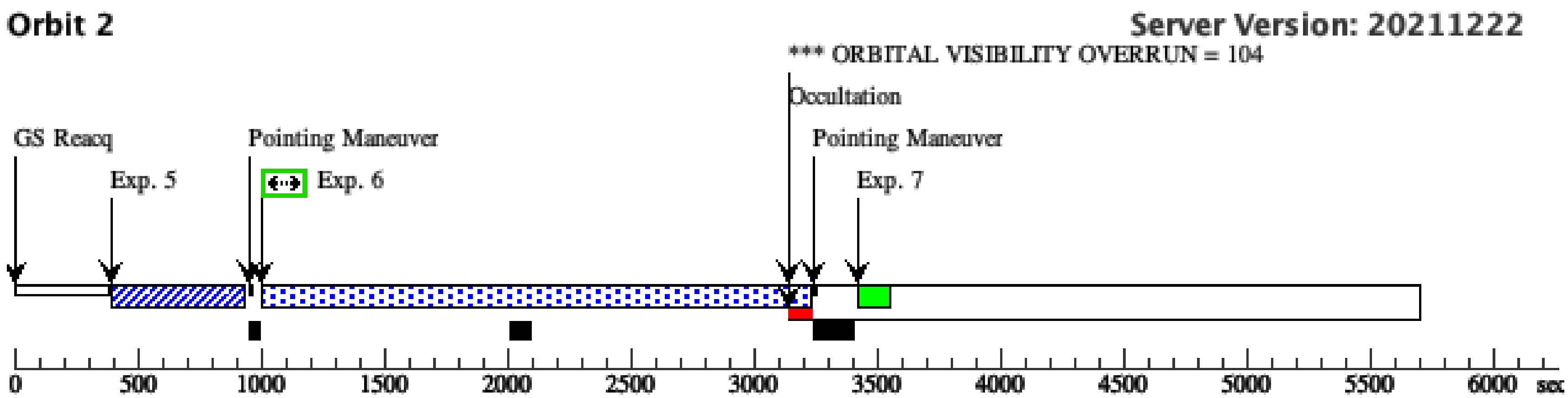
Exposures

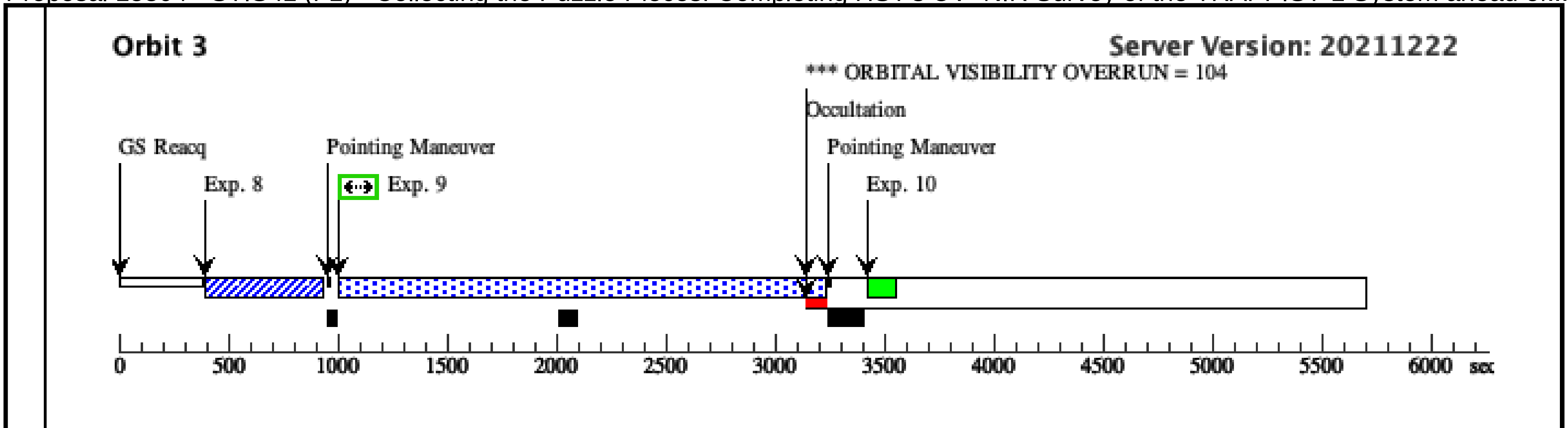
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.0022	Sequence 1-4 Non-Int in STIS f1 (F1)	5 Secs (5 Secs) [==>]	[1]
	Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.								
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS f1 (F1)	10 Secs (10 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS f1 (F1)	1800 Secs (1800 Secs) [==>]	[1]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS f1 (F1)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS f1 (F1)	10 Secs (10 Secs) [==>]	[2]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS f1 (F1)	2100 Secs (2100 Secs) [==>]	[2]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS f1 (F1)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS f1 (F1)	10 Secs (10 Secs) [==>]	[3]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS f1 (F1)	2100 Secs (2100 Secs) [==>]	[3]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS f1 (F1)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS f1 (F1)	10 Secs (10 Secs) [==>]	[4]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.								

	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS f1 (F1)	2100 Secs (2100 Secs) [==>]	[4]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS f1 (F1)	[==>]	[4]

Orbit Structure



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Server Version: 20211222
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Occultation
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Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
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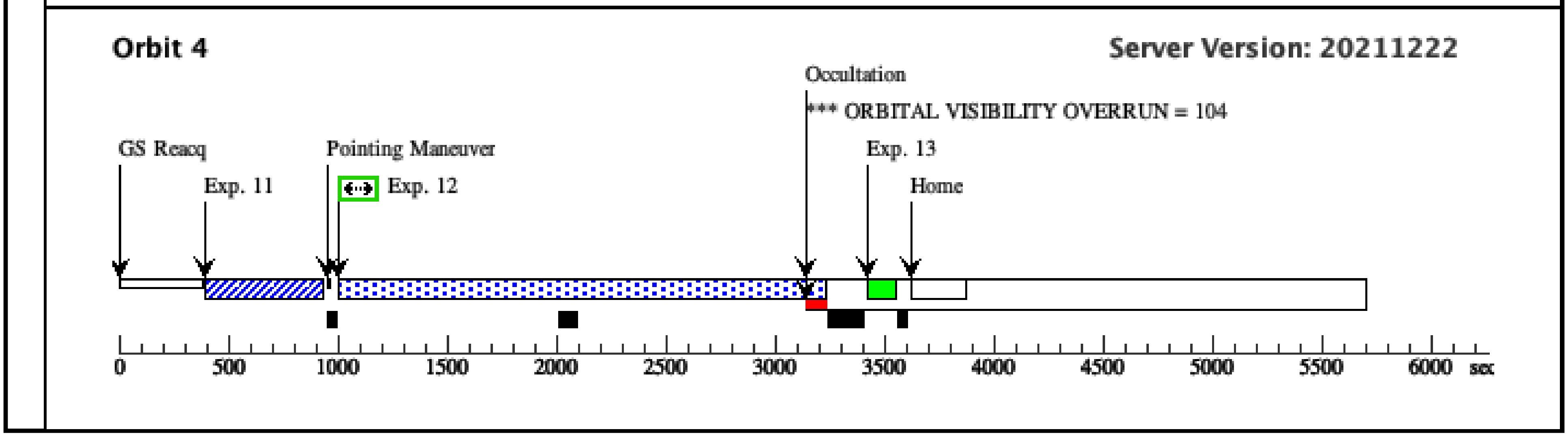

Orbit 4
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS f2 (F2), completed Mon May 23 13:02:03 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 9.206318826 D AND ZERO-PHASE HJD2457671.276243970

Diagnostics

(STIS f2 (F2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS f2 (F2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS f2 (F2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

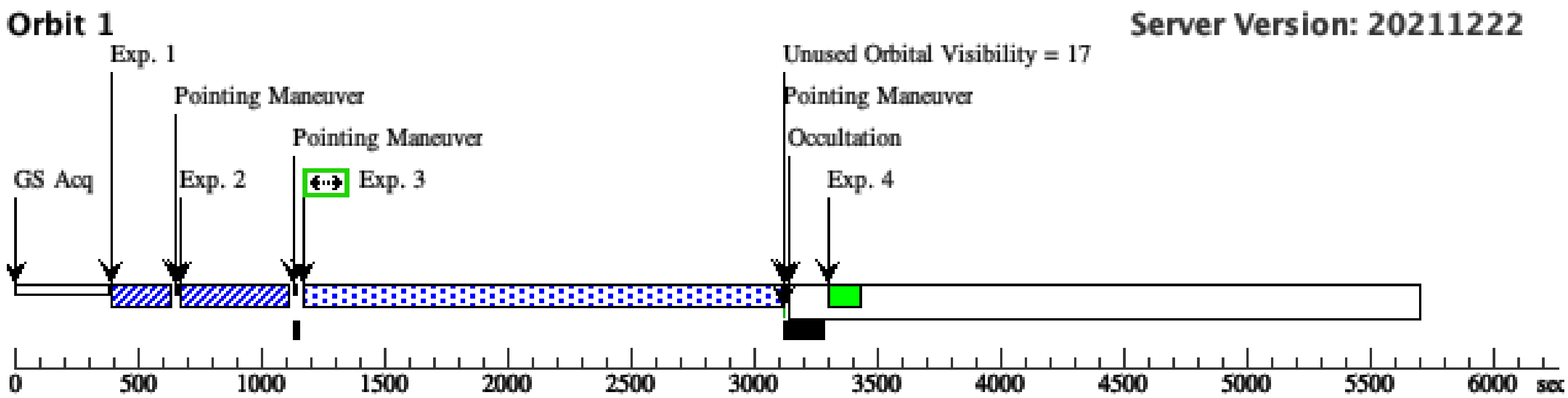
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

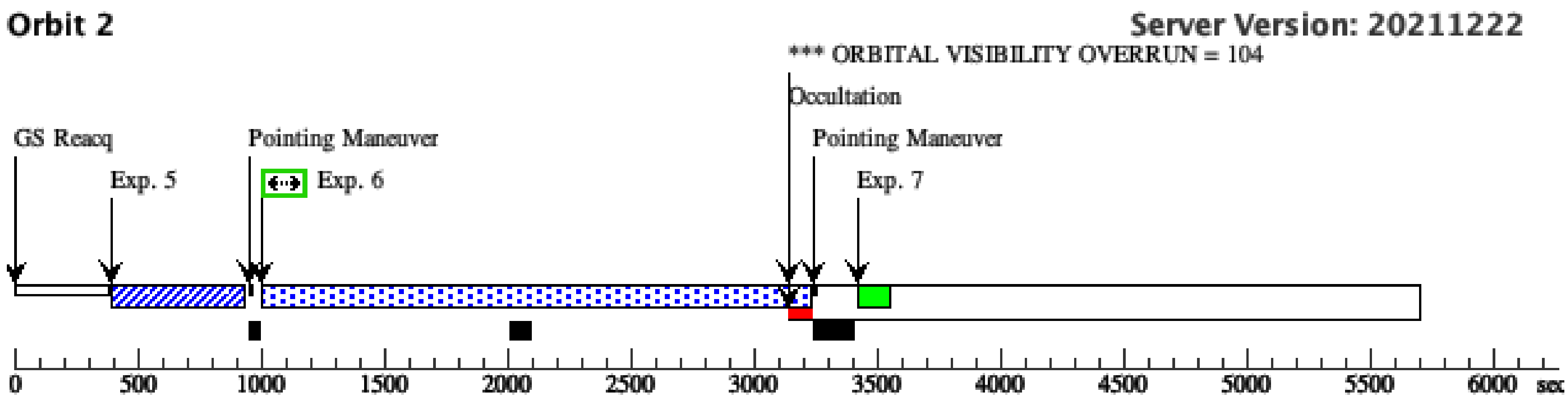
Exposures

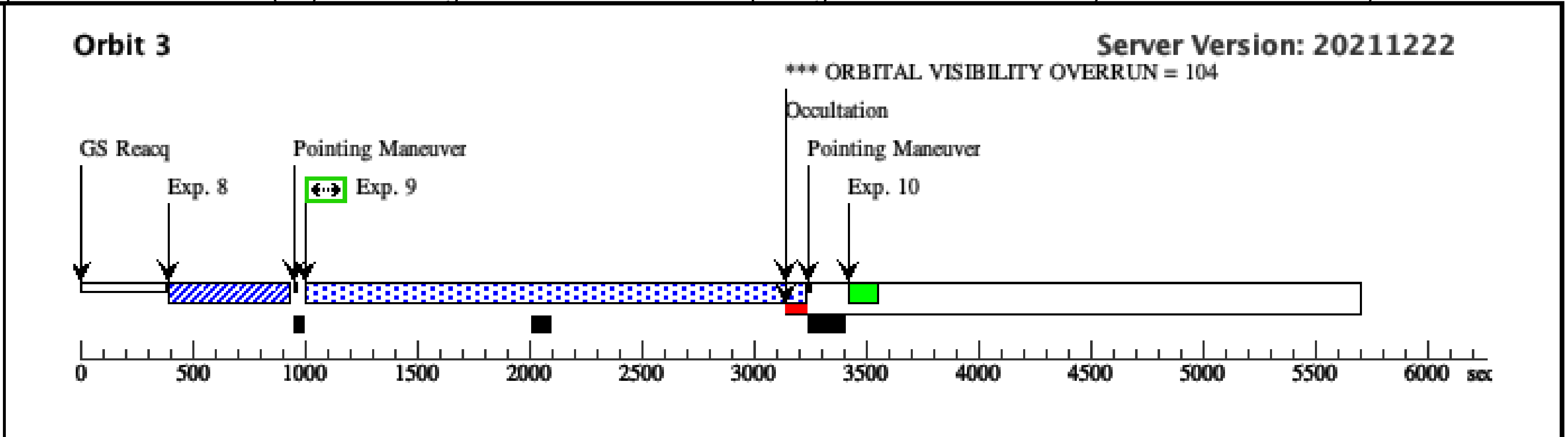
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.0022	Sequence 1-4 Non-Int in STIS f2 (F2)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS f2 (F2)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS f2 (F2)	1800 Secs (1800 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS f2 (F2)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS f2 (F2)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS f2 (F2)	2100 Secs (2100 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS f2 (F2)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS f2 (F2)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS f2 (F2)	2100 Secs (2100 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS f2 (F2)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS f2 (F2)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS f2 (F2)	2100 Secs (2100 Secs) [==>]	[4]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS f2 (F2)	[==>]	[4]

Orbit Structure



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Server Version: 20211222
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GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
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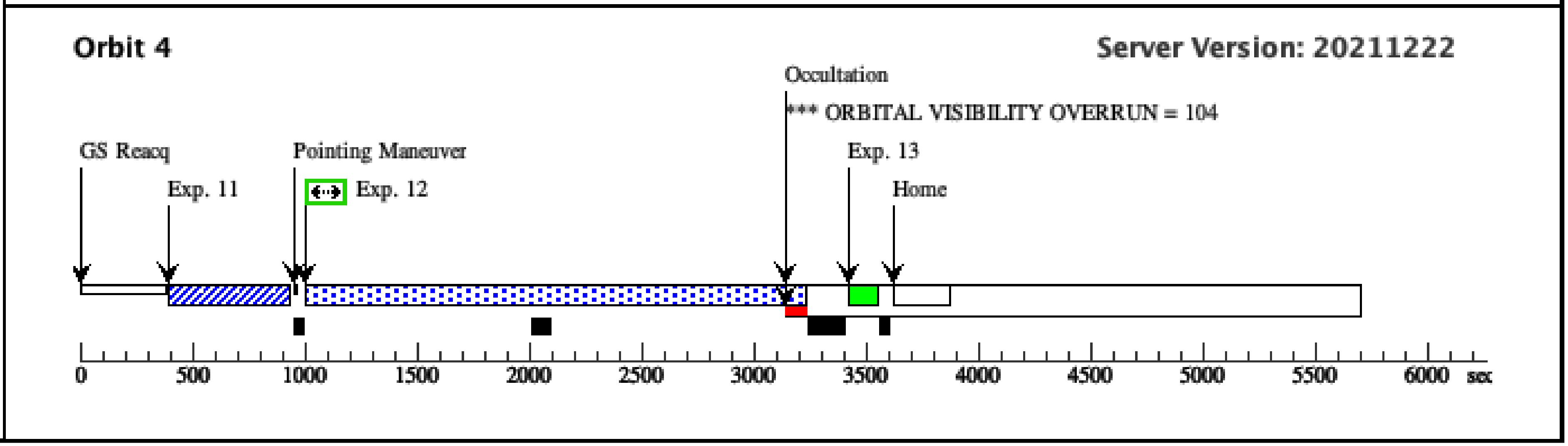

Orbit 4
Server Version: 20211222
Occultation
*** ORBITAL VISIBILITY OVERRUN = 104
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS f3 (F3), completed Mon May 23 13:02:03 GMT 2022

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; BETWEEN 12-AUG-2021:10:36:00 AND 12-AUG-2021:11:36:00

Comments: BETWEEN is being used to force into the correct orbits to capture the transit.

Original requirements
Period= 9.206318826
Zero Phase= 2457671.276243970
Phase= 0 to 0.0022

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

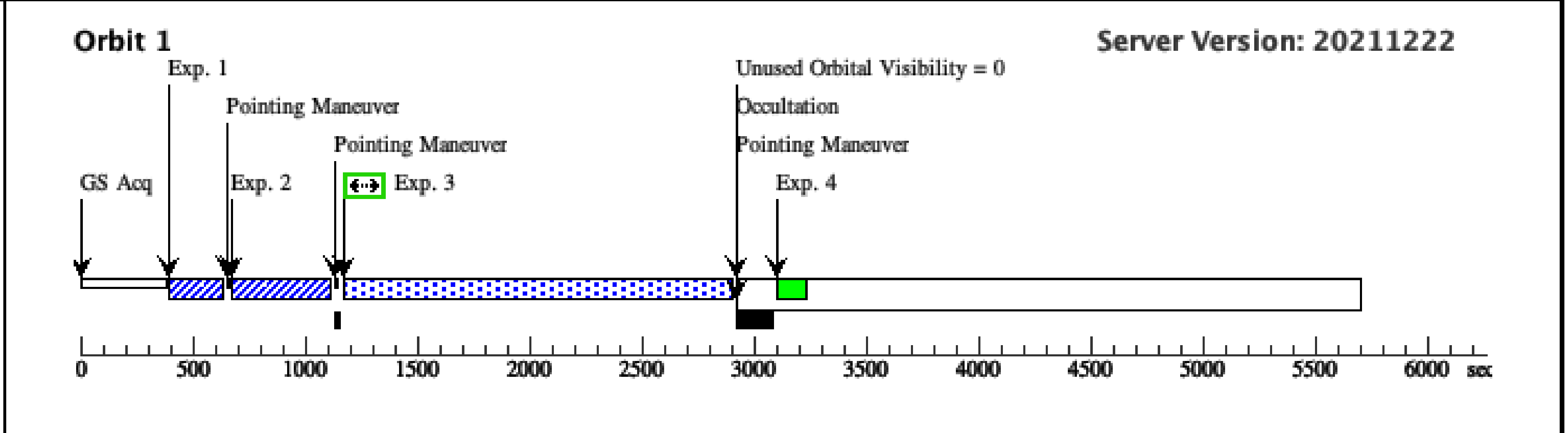
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

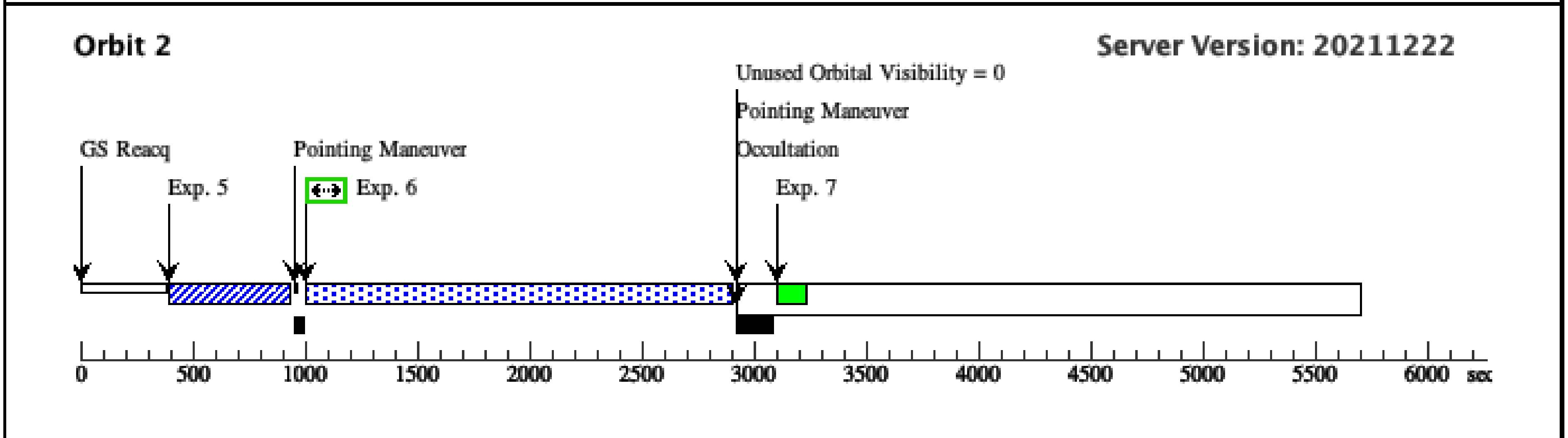
Exposures

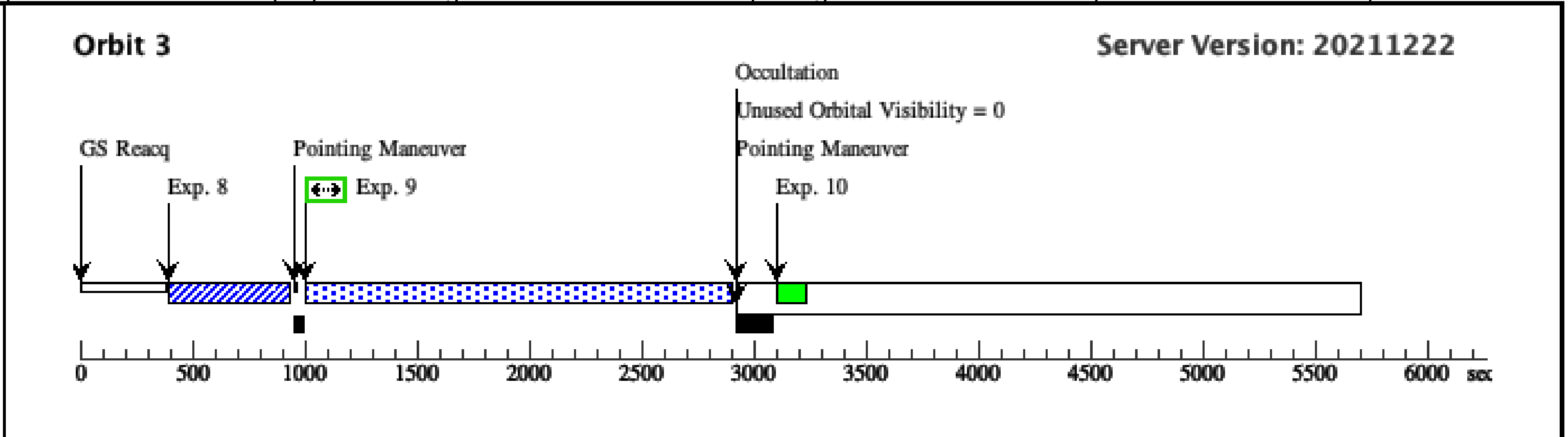
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR			Sequence 1-4 Non-Int in STIS f3 (F3)	5 Secs (5 Secs) [==>]	[1]
Comments: *We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.*									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS f3 (F3)	10 Secs (10 Secs) [==>]	[1]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS f3 (F3)	1594 Secs (1594 Secs) [==>]	[1]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS f3 (F3)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS f3 (F3)	10 Secs (10 Secs) [==>]	[2]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS f3 (F3)	1773 Secs (1773 Secs) [==>]	[2]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS f3 (F3)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS f3 (F3)	10 Secs (10 Secs) [==>]	[3]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS f3 (F3)	1773 Secs (1773 Secs) [==>]	[3]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS f3 (F3)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS f3 (F3)	10 Secs (10 Secs) [==>]	[4]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									

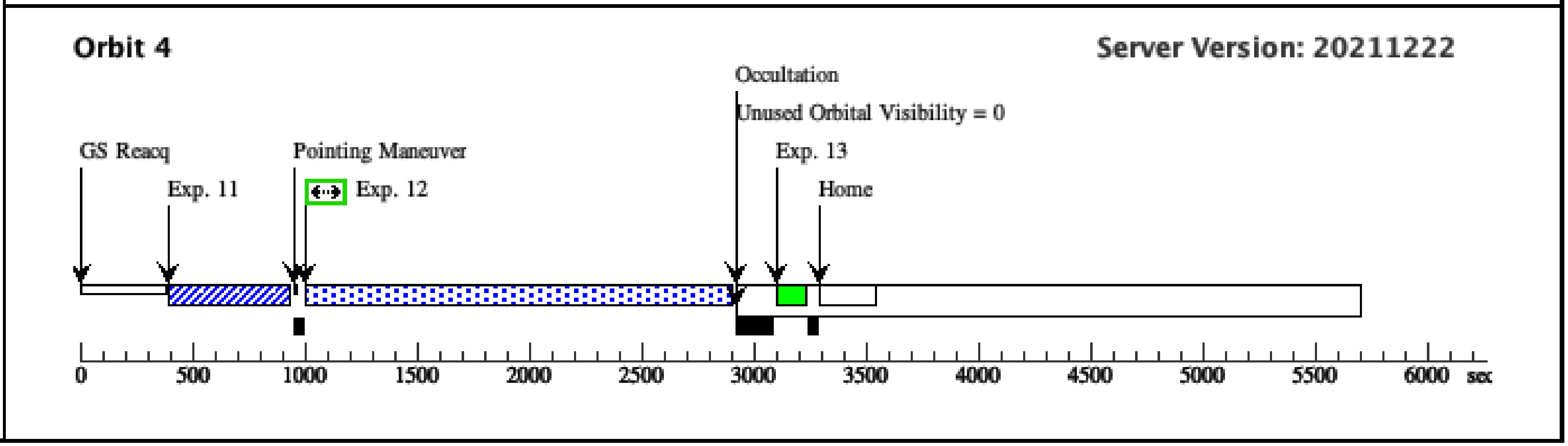
12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS f3 (F3)	1773 Secs (1773 Secs) [==>]	[4]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS f3 (F3)	[==>]	[4]

Orbit Structure






Orbit 3
Server Version: 20211222
Occultation
Unused Orbital Visibility = 0
Pointing Maneuver
GS Reacq
Exp. 8
Pointing Maneuver
Exp. 9
Exp. 10
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec


Orbit 4
Server Version: 20211222
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 11
Pointing Maneuver
Exp. 12
Exp. 13
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS g1 (G1), completed Mon May 23 13:02:03 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 12.35351378 D AND ZERO-PHASE HJD2457665.257828620

Diagnostics

(STIS g1 (G1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS g1 (G1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS g1 (G1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

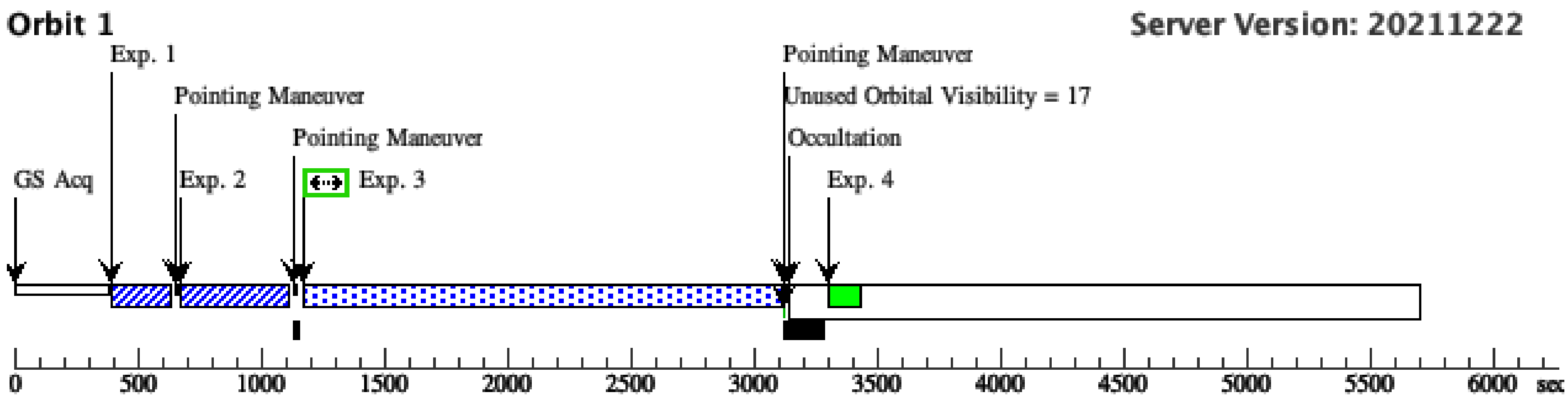
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

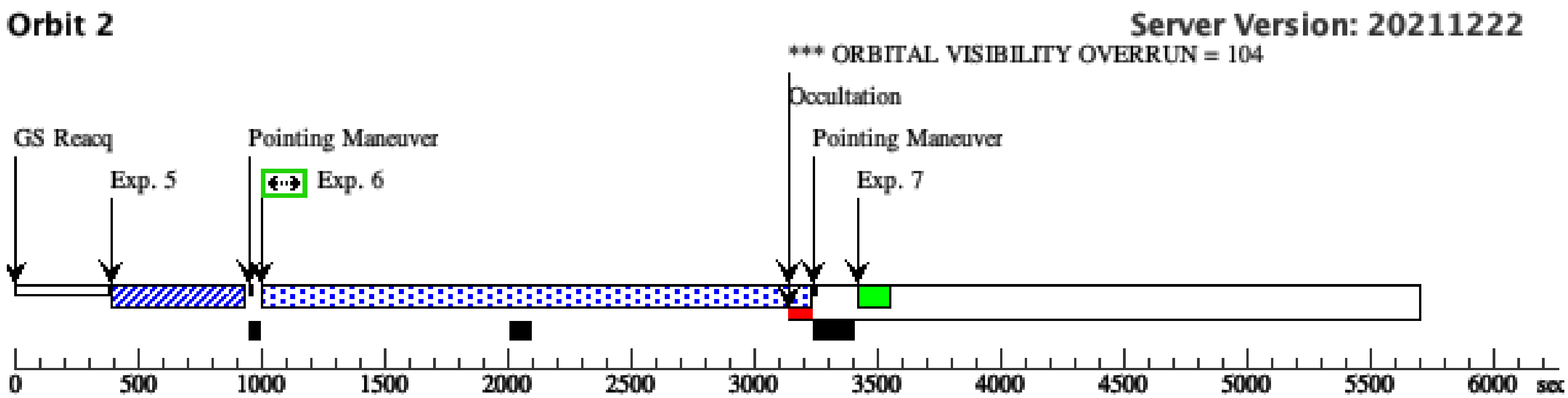
Exposures

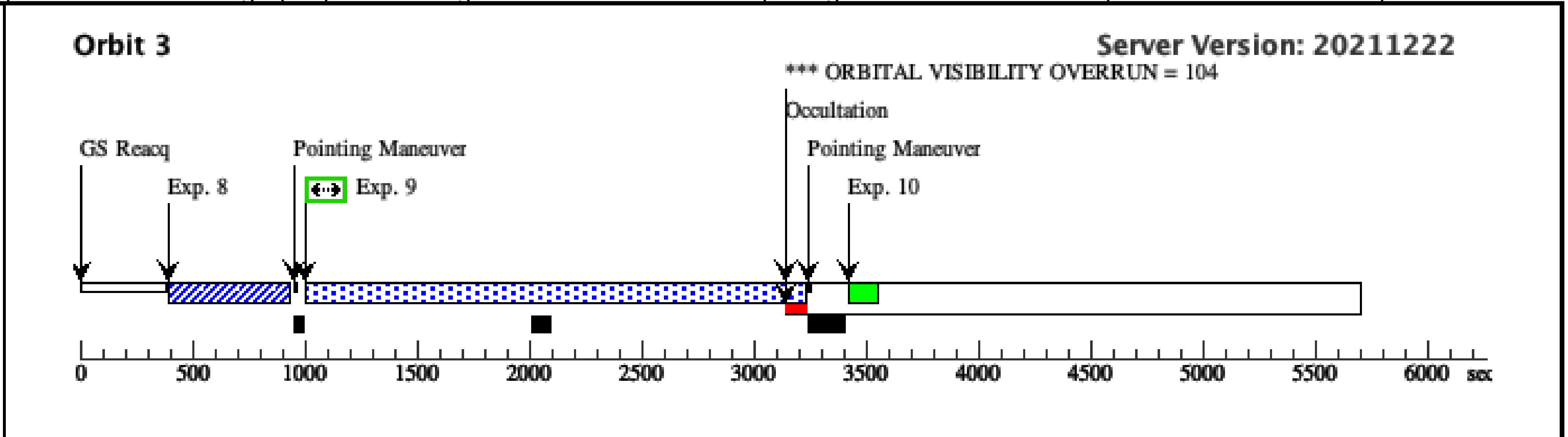
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.0016	Sequence 1-4 Non-Int in STIS g1 (G1)	5 Secs (5 Secs) [==>]	[1]
Comments: *We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.*									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS g1 (G1)	10 Secs (10 Secs) [==>]	[1]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS g1 (G1)	1800 Secs (1800 Secs) [==>]	[1]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS g1 (G1)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS g1 (G1)	10 Secs (10 Secs) [==>]	[2]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS g1 (G1)	2100 Secs (2100 Secs) [==>]	[2]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS g1 (G1)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS g1 (G1)	10 Secs (10 Secs) [==>]	[3]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS g1 (G1)	2100 Secs (2100 Secs) [==>]	[3]
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS g1 (G1)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS g1 (G1)	10 Secs (10 Secs) [==>]	[4]
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									

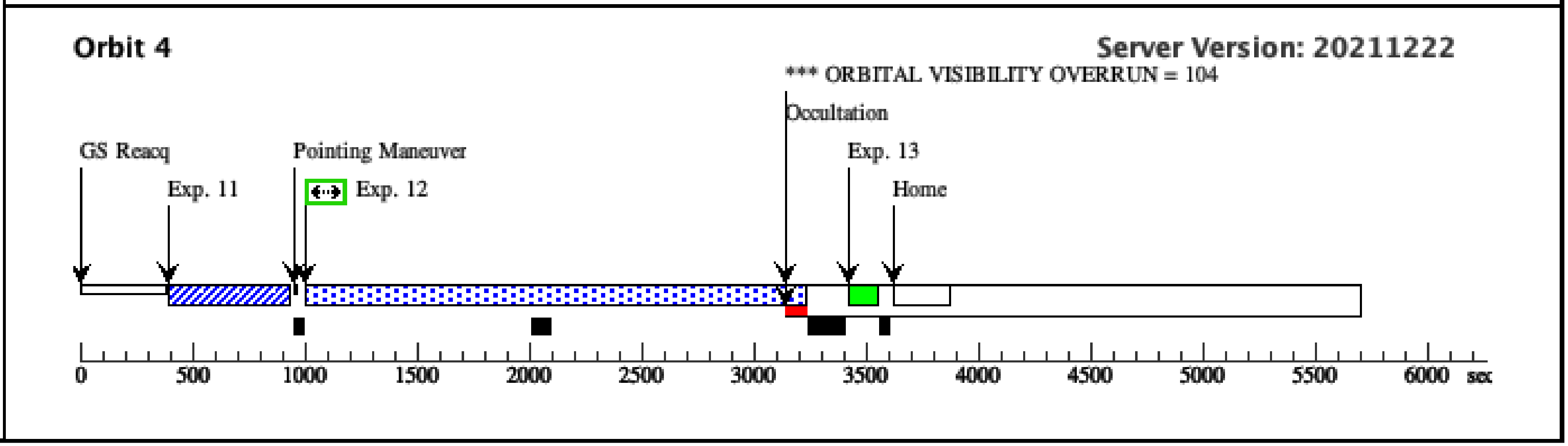
	12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS g1 (G1)	2100 Secs (2100 Secs) [==>]	[4]
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
	13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS g1 (G1)	[==>]	[4]

Orbit Structure






Orbit 3
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 104
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec


Orbit 4
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 104
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS g2 (G2), completed Mon May 23 13:02:03 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 12.35351378 D AND ZERO-PHASE HJD2457665.257828620

Diagnostics

(STIS g2 (G2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS g2 (G2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS g2 (G2)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

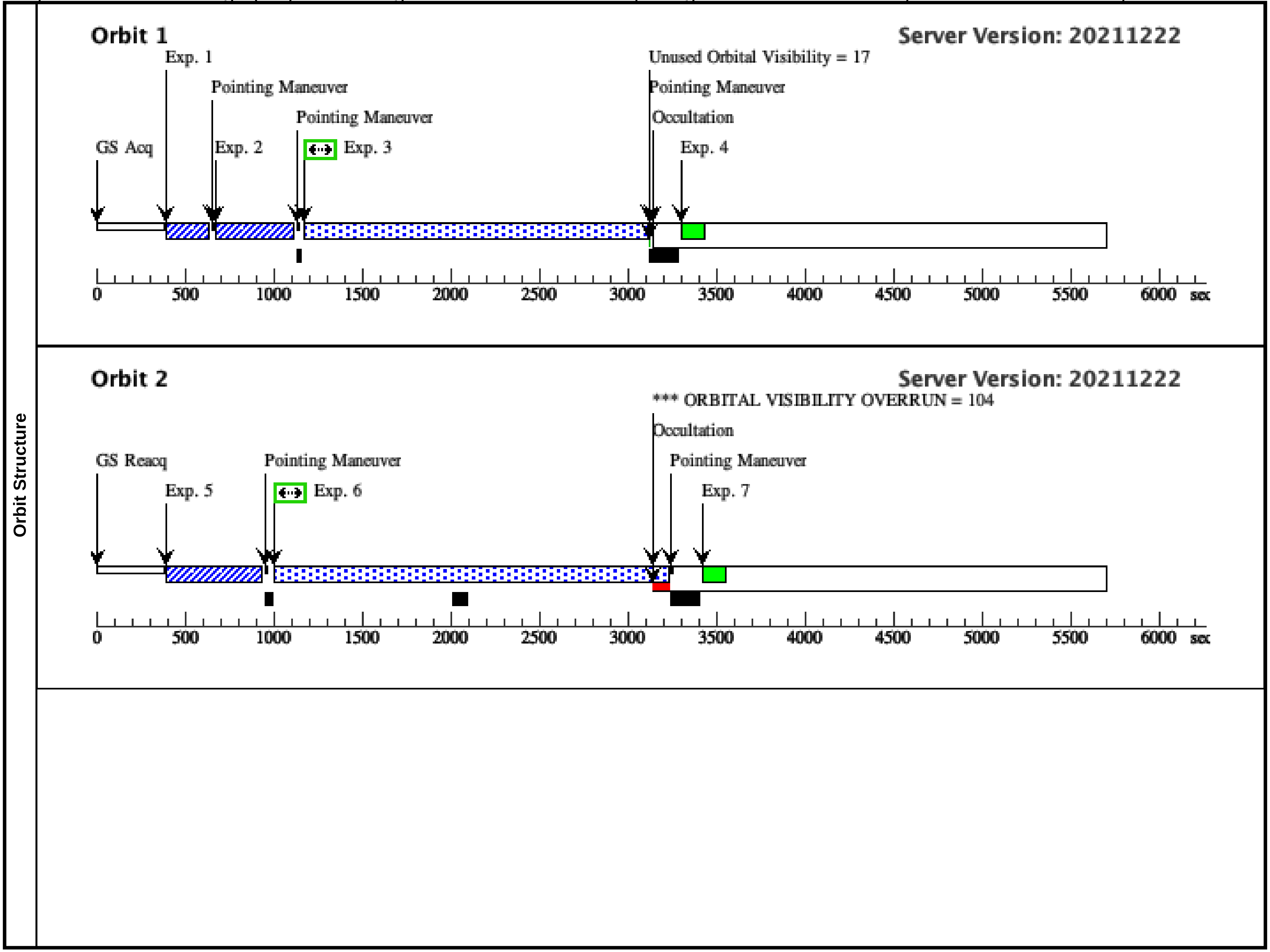
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

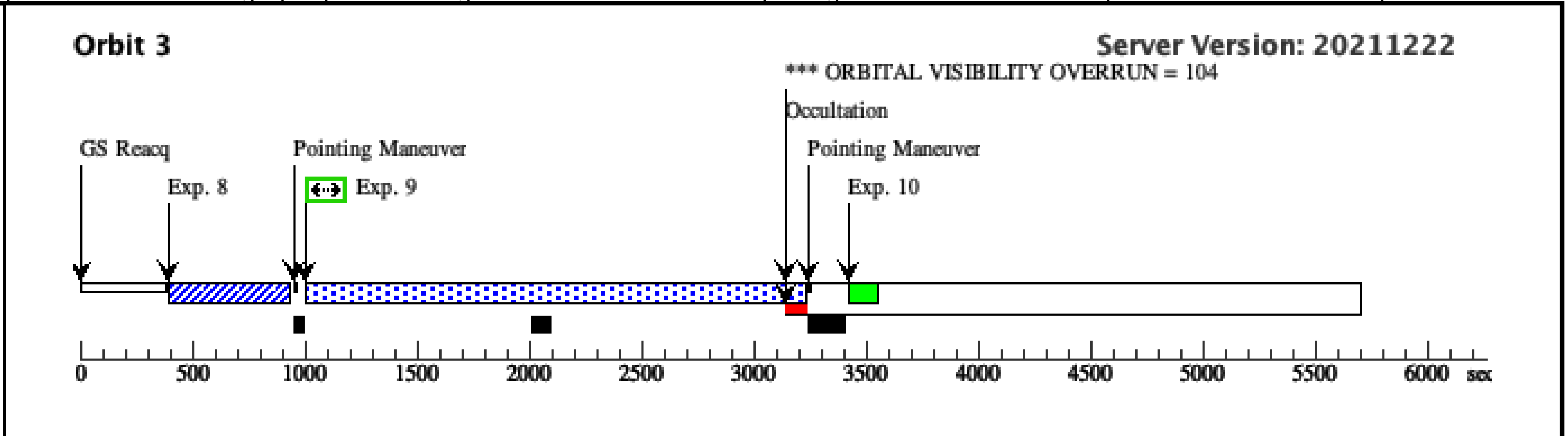
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

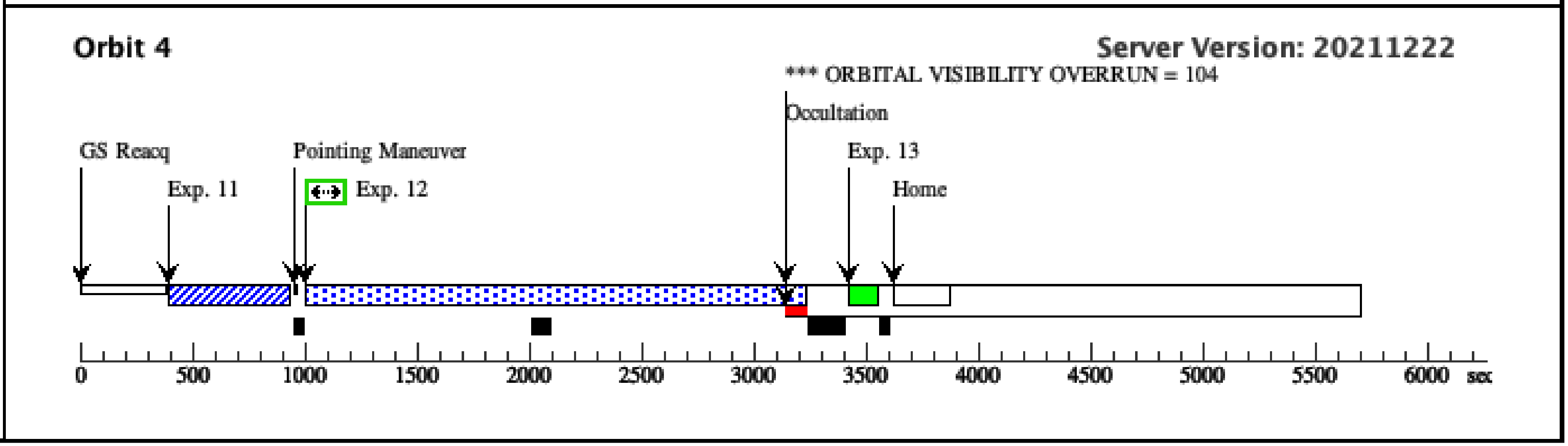
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.0016	Sequence 1-4 Non-Int in STIS g2 (G2)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS g2 (G2)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS g2 (G2)	1800 Secs (1800 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS g2 (G2)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS g2 (G2)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS g2 (G2)	2100 Secs (2100 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS g2 (G2)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS g2 (G2)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS g2 (G2)	2100 Secs (2100 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS g2 (G2)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS g2 (G2)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS g2 (G2)	2100 Secs (2100 Secs) *[==>]*		***[4]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS g2 (G2)	*[==>]*		***[4]***


Orbit Structure
Orbit 1
Server Version: 20211222
Exp. 1
Pointing Maneuver
Pointing Maneuver
GS Acq
Exp. 2
Exp. 3
Unused Orbital Visibility = 17
Pointing Maneuver
Occultation
Exp. 4
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec
Orbit 2
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 104
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 5
Exp. 6
Exp. 7
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec


Orbit 3
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 104
Occultation
GS Reacq
Pointing Maneuver
Pointing Maneuver
Exp. 8
Exp. 9
Exp. 10
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec


Orbit 4
Server Version: 20211222
*** ORBITAL VISIBILITY OVERRUN = 104
Occultation
GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 sec

Visit

Proposal 15304, STIS h1 (H1), completed

Mon May 23 13:02:03 GMT 2022

Diagnostic Status: Warning

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

Special Requirements: Period 18.76745243 D AND ZERO-PHASE HJD2457662.459224910

Diagnostics

(STIS h1 (H1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS h1 (H1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(STIS h1 (H1)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

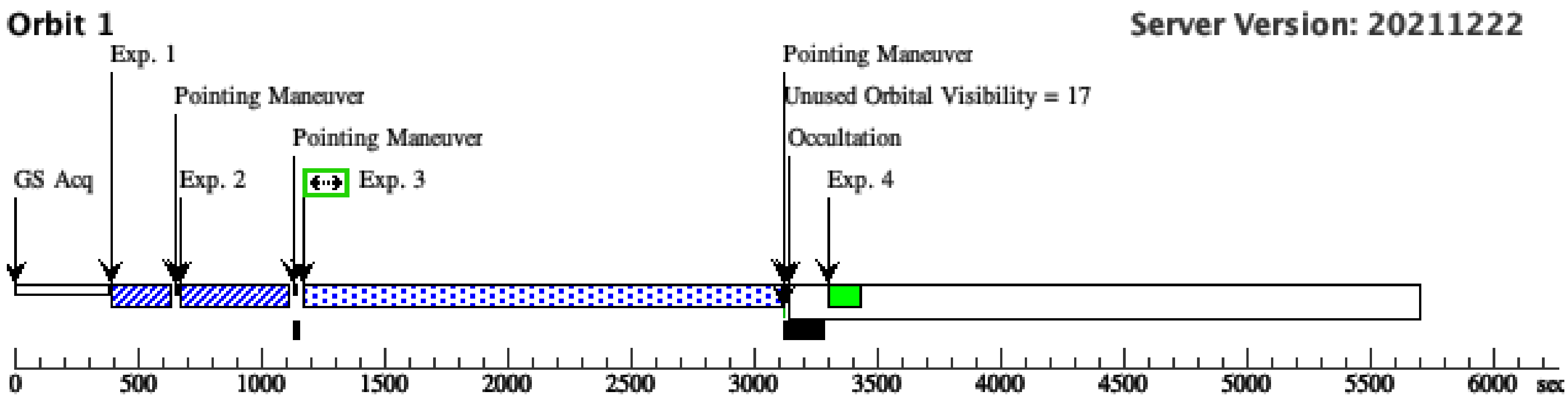
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

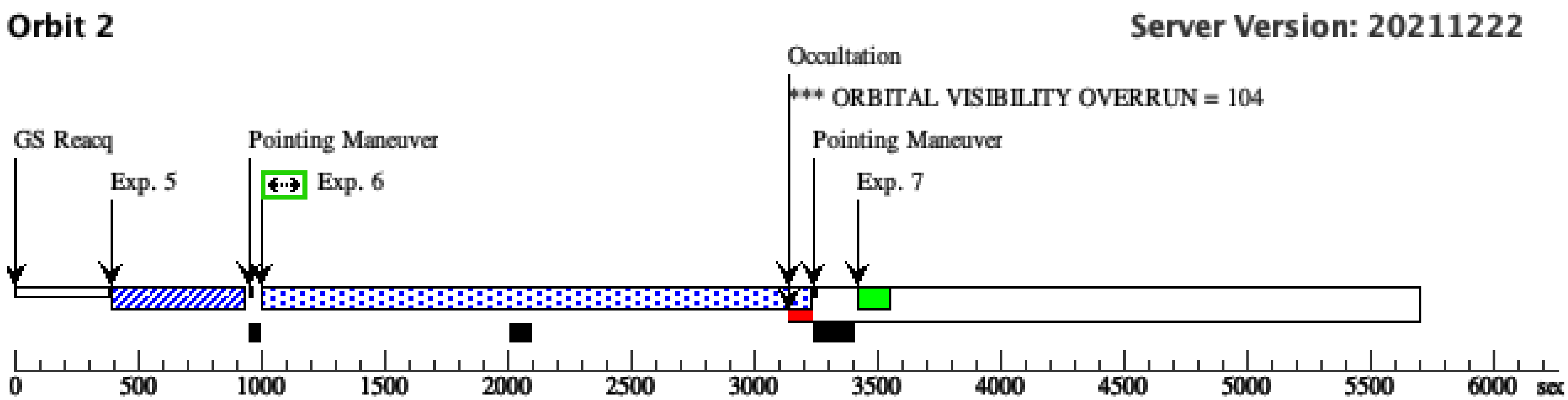
Exposures

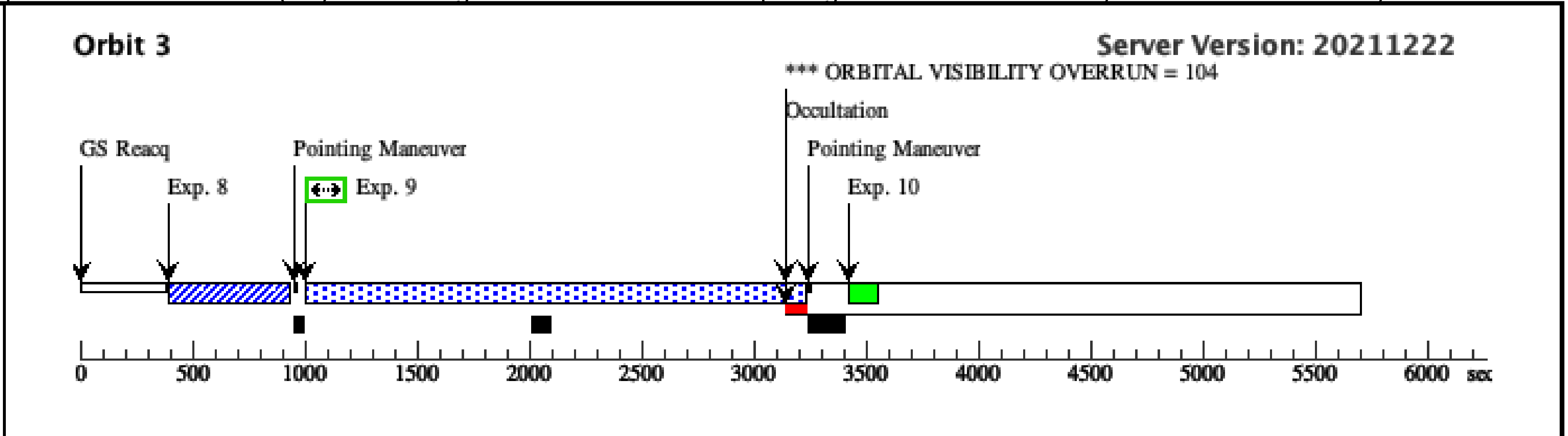
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0 TO 0.0011	Sequence 1-4 Non-Int in STIS h1 (H1)	5 Secs (5 Secs) [==>]	[1]
Comments: We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS h1 (H1)	10 Secs (10 Secs) [==>]	[1]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS h1 (H1)	1800 Secs (1800 Secs) [==>]	[1]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS h1 (H1)	[==>]	[1]
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS h1 (H1)	10 Secs (10 Secs) [==>]	[2]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS h1 (H1)	2100 Secs (2100 Secs) [==>]	[2]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS h1 (H1)	[==>]	[2]
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS h1 (H1)	10 Secs (10 Secs) [==>]	[3]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS h1 (H1)	2100 Secs (2100 Secs) [==>]	[3]
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS h1 (H1)	[==>]	[3]
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS h1 (H1)	10 Secs (10 Secs) [==>]	[4]
Comments: The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS h1 (H1)	2100 Secs (2100 Secs) *[==>]*	***[4]***
Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.								
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS h1 (H1)	*[==>]*	***[4]***

Orbit Structure



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Pointing Maneuver
Pointing Maneuver
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Exp. 9
Exp. 10
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1000
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3500
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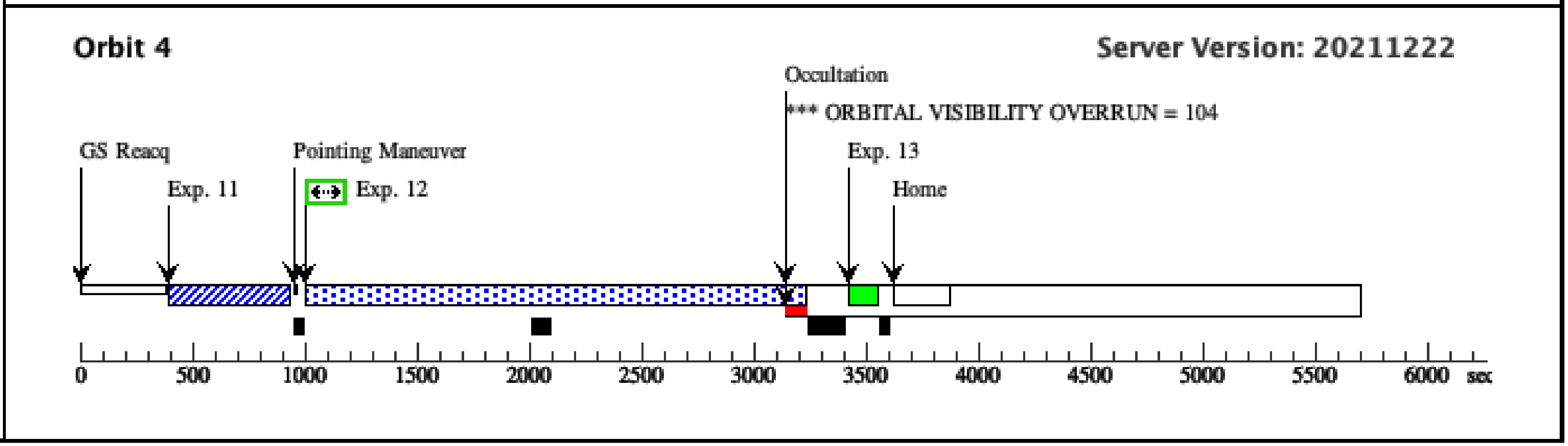
6000
sec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GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15304, STIS h2 (H2), completed Mon May 23 13:02:03 GMT 2022

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%; Period 18.76745243 D AND ZERO-PHASE HJD2457662.459224910

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	2MASS-J23062928-0502285 Alt Name1: TRAPPIST-1	RA: 23 06 30.3400 (346.6264167d) Dec: -05 02 36.44 (-5.04346d) Equinox: J2000	Proper Motion RA: 922.1 mas/yr Proper Motion Dec: -471.9 mas/yr Parallax: 0.08258" Epoch of Position: 2015.86 Radial Velocity: -51.688 km/sec	V=18.798+/-0.082 V=18.80+-0.08, R=16.47+-0.07, I=14.0+-0.1, J=11.35+-0.02, K=10.30+-0.02	Reference Frame: ICRS

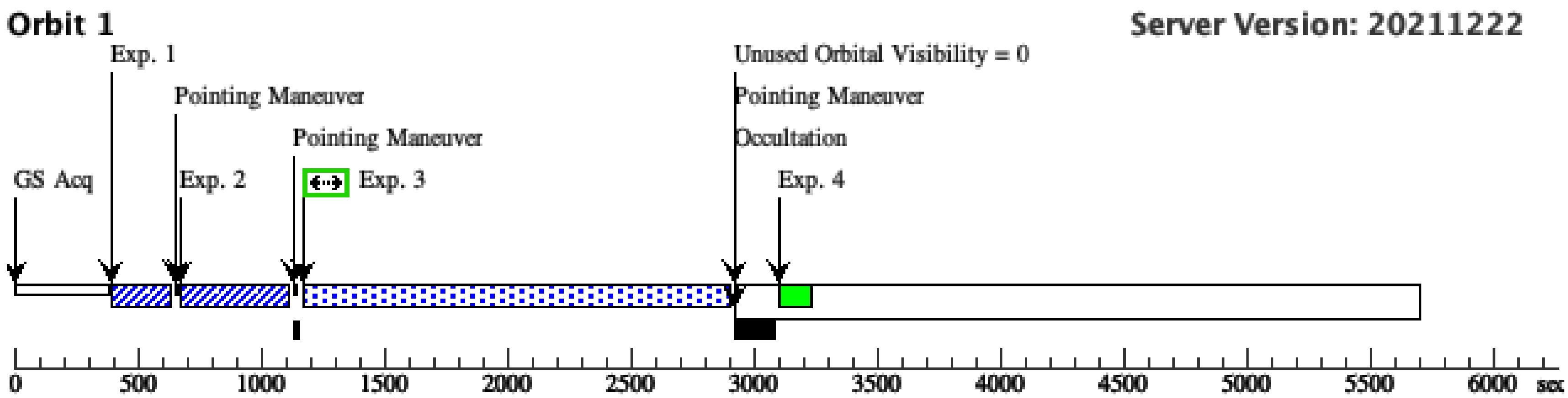
Comments: We measured the J2000 equatorial coordinates of TRAPPIST-1 in the 2015 TRAPPIST images, using 29 stars from the UCAC2 catalog and the Pulkovo Observatory Izmccd astrometric software (we use the mean epoch of these observations secured between September and December 2015). We adopt uncertainties on RA and Dec as those for 2MASS for this object.
We checked that the input coordinates and those given in SIMBAD at Epoch 2000 yield the same position in the APT target confirmation chart at Epoch 1991.68. We also checked independently that these coordinates and proper motion match with the position of the star in POSS image (1953) and 2MASS image (1998).
Radial velocity comes from Barnes et al. 2014
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM]

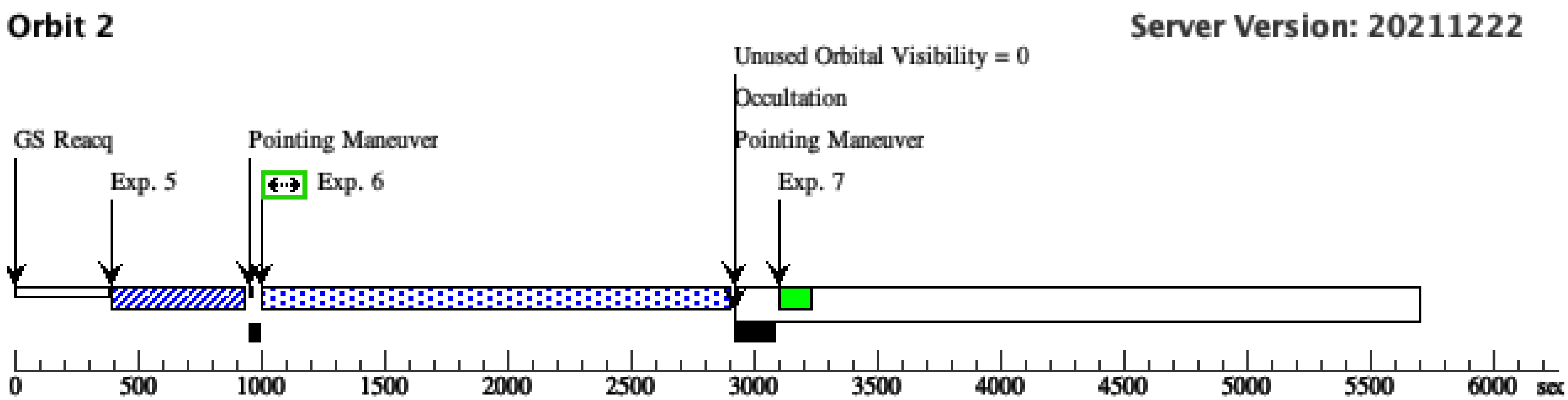
Exposures

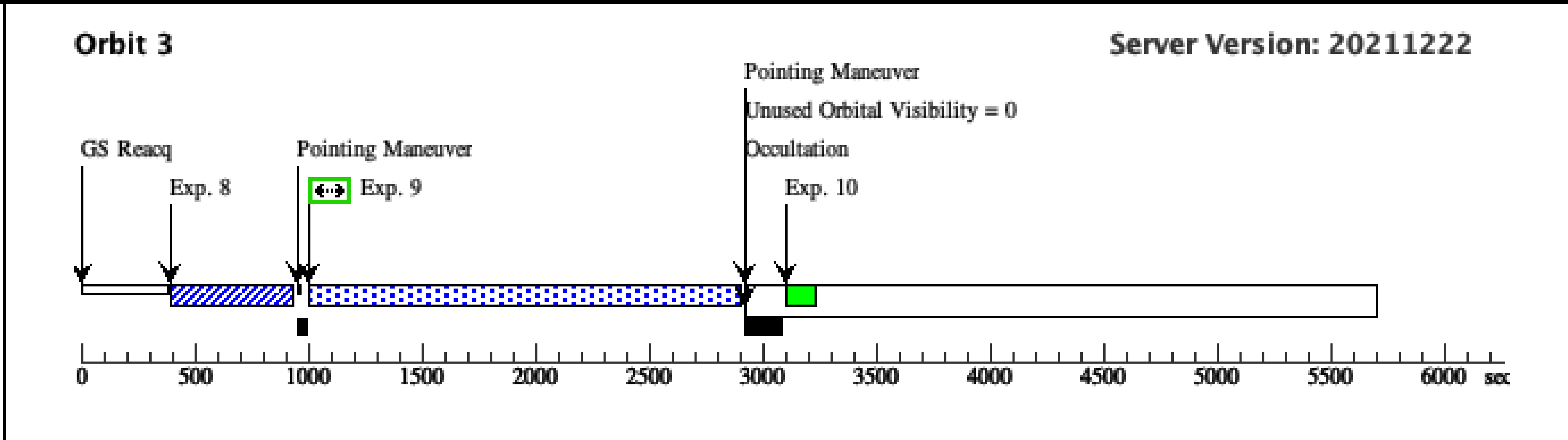
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.781643)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ, F28X50LP	MIRROR		PHASE 0.999 TO 0.0019	Sequence 1-4 Non-Int in STIS h2 (H2)	5 Secs (5 Secs) *[==>]*	*[1]*
Comments: *We use the F28X50LP filter for this ACQ image, as recommended for this star with V magnitude of 18.8. It also ensures the brightness is weighted most strongly toward red wavelengths, where the target star is brightest. We estimated the exposure time for several stellar models close to the target star (STIS.ta.781640, STIS.ta.781641, STIS.ta.781643). Exposure times to reach a SNR of 40 range from 1.5 to 3.6s, and minimum saturation time is 290s. We thus choose an exposure time of 5s. We used Aladin to check that the closest star is at a distance of more than 220 arcsec. There is thus no chance that STIS acquires another object in the 5x5 arcsec search area.*									
2	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 1-4 Non-Int in STIS h2 (H2)	10 Secs (10 Secs) *[==>]*	*[1]*
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
3	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 1-4 Non-Int in STIS h2 (H2)	1800 Secs (1594 Secs) *[==>1594.0 Secs]*	*[1]*
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
4	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in STIS h2 (H2)	*[==>]*	*[1]*
5	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 5-7 Non-Int in STIS h2 (H2)	10 Secs (10 Secs) *[==>]*	*[2]*
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
6	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 5-7 Non-Int in STIS h2 (H2)	2100 Secs (1773 Secs) *[==>1773.0 Secs]*	*[2]*
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
7	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 5-7 Non-Int in STIS h2 (H2)	*[==>]*	*[2]*
8	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 8-10 Non-Int in STIS h2 (H2)	10 Secs (10 Secs) *[==>]*	*[3]*
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									
9	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO		Sequence 8-10 Non-Int in STIS h2 (H2)	2100 Secs (1773 Secs) *[==>1773.0 Secs]*	*[3]*
Comments: *The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.*									
10	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 8-10 Non-Int in STIS h2 (H2)	*[==>]*	*[3]*
11	ACQ/PEAK (STIS.ta.783365)	(1) 2MASS-J23062928-0502285	STIS/CCD, ACQ/PEAK, 52X0.05D1	MIRROR			Sequence 11-13 Non-Int in STIS h2 (H2)	10 Secs (10 Secs) *[==>]*	*[4]*
Comments: *The ETC lists a time to saturation through the 52X0.05 slit of 1086s (for a black body model with the same temperature as the star). With our 10s exposure, we should reach 5600 source electrons, above the 5000 required for peak-up with the mirror element.*									

12	SCIENCE (STIS.sp.415432)	(1) 2MASS-J23062928-0502285	STIS/FUV-MAMA, TIME-TAG, 52X0.05D1	G140M 1222 A	BUFFER-TIME=900; WAVECAL=NO	Sequence 11-13 Non-Int in STIS h2 (H2)	2100 Secs (1773 Secs) *[==>1773.0 Secs]*	***[4]***
	Comments: The target star is a M8 ultracool dwarf from which we expect a much lower emission at Lyman-alpha than from GJ436 targeted in program GO#12965 (in the GJ140M spectral range, the stellar emission from these stars will arise from the Lyman-alpha line alone). We can thus use safely the same settings as program GO#12965.							
13	GO-WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A		Sequence 11-13 Non-Int in STIS h2 (H2)	*[==>]*	***[4]***

Orbit Structure



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GS Reacq
Pointing Maneuver
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Exp. 10
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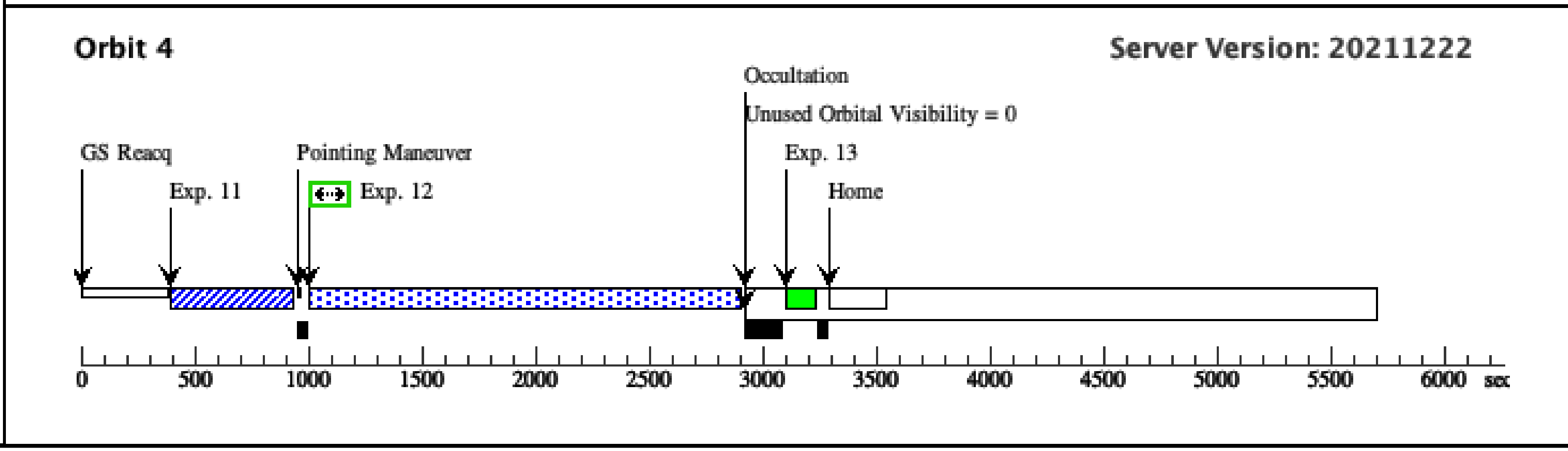
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GS Reacq
Pointing Maneuver
Exp. 13
Exp. 11
Exp. 12
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5500
6000
sec