



15814 - Atmospheric characterization of two temperate mini-Neptunes formed in the same protoplanetary nebula

Cycle: 27, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
08	(1) TOI-270	WFC3/IR	3	26-Sep-2022 17:00:23.0	yes
14	(1) TOI-270	WFC3/IR	3	26-Sep-2022 17:00:31.0	yes

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
40	(1) TOI-270 WAVE	STIS/CCD STIS/FUV-MAMA	1	26-Sep-2022 17:00:33.0	yes
41	(1) TOI-270 WAVE	STIS/CCD STIS/FUV-MAMA	1	26-Sep-2022 17:00:34.0	yes
62	(1) TOI-270	WFC3/IR	3	26-Sep-2022 17:00:39.0	yes
65	(1) TOI-270	WFC3/IR	3	26-Sep-2022 17:00:47.0	yes
4C	(1) TOI-270	WFC3/IR	4	26-Sep-2022 17:00:55.0	yes
4E	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:01:05.0	yes
4F	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:01:16.0	yes
4G	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:01:27.0	yes
4H	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:01:38.0	yes
4K	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:01:49.0	yes
4L	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:02:00.0	yes
4M	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:02:12.0	yes
4N	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:02:22.0	yes
4O	(1) TOI-270	WFC3/IR	5	26-Sep-2022 17:02:33.0	yes
0V	(1) TOI-270	WFC3/IR	3	26-Sep-2022 17:02:40.0	yes

66 Total Orbits Used

ABSTRACT

The TESS mission recently uncovered a remarkable multi-planet system consisting of a super-Earth and two temperate mini-Neptunes around the bright M3 dwarf star TOI-270. Here we propose to acquire near-infrared transmission spectra for the two mini-Neptunes (TOI-270 c&d) across the 1.1-1.6 micron wavelength range using WFC3. Both TOI-270 c&d are exceptionally favorable targets for transmission spectroscopy, despite having low equilibrium temperatures of 340K and 420K. This provides an unprecedented opportunity to compare the atmospheres of two planets belonging to this enigmatic class that formed from the same protoplanetary nebula. Chemical equilibrium models predict methane will be the dominant infrared absorber for both atmospheres, representing an uncharted chemistry regime for exoplanets. Our observations will have the sensitivity to measure

Proposal 15814 (STScI Edit Number: 0, Created: Monday, September 26, 2022 at 4:02:41 PM Eastern Standard Time) - Overview

methane abundances to within 1dex for metallicities up to 1000x solar, placing the first direct constraints on mini-Neptune chemical composition. Given the temperatures of TOI-270 c&d, condensed H₂O or KCl clouds are not expected at the pressures probed by the transmission spectrum. However, photochemical haze may be present in one or both atmospheres. If so, our observations will provide a unique test of how photochemical haze production correlates with incident UV flux and planet temperature, given that both planets orbit the same star. As part of our program, we will also make use of HST's unparalleled UV capabilities to measure the stellar Lyman-alpha emission using STIS, providing an essential input to photochemical models.

OBSERVING DESCRIPTION

There is a single target star for our program (TOI-270) and we will observe transits for two different planets orbiting this star. However, since the planets in this system exhibit significant transit timing variations (TTVs), the phasing must be carefully specified for each transit event. In other words, we cannot use a single ephemeris (i.e. the time corresponding to mid-transit) and orbital period for each planet. Instead, we need to specify an ephemeris for each transit event individually. To achieve this in APT, we have defined multiple "Targets", one for each *transit event* occurring between 2019 October 1st and 2020 October 1st for both of the planets. In all cases, the same star (TOI-270) is the actual target being observed.

Proposal 15814 - TOI-270c Transit (Feb 25) (08) - Atmospheric characterization of two temperate mini-Neptunes formed in the same p...

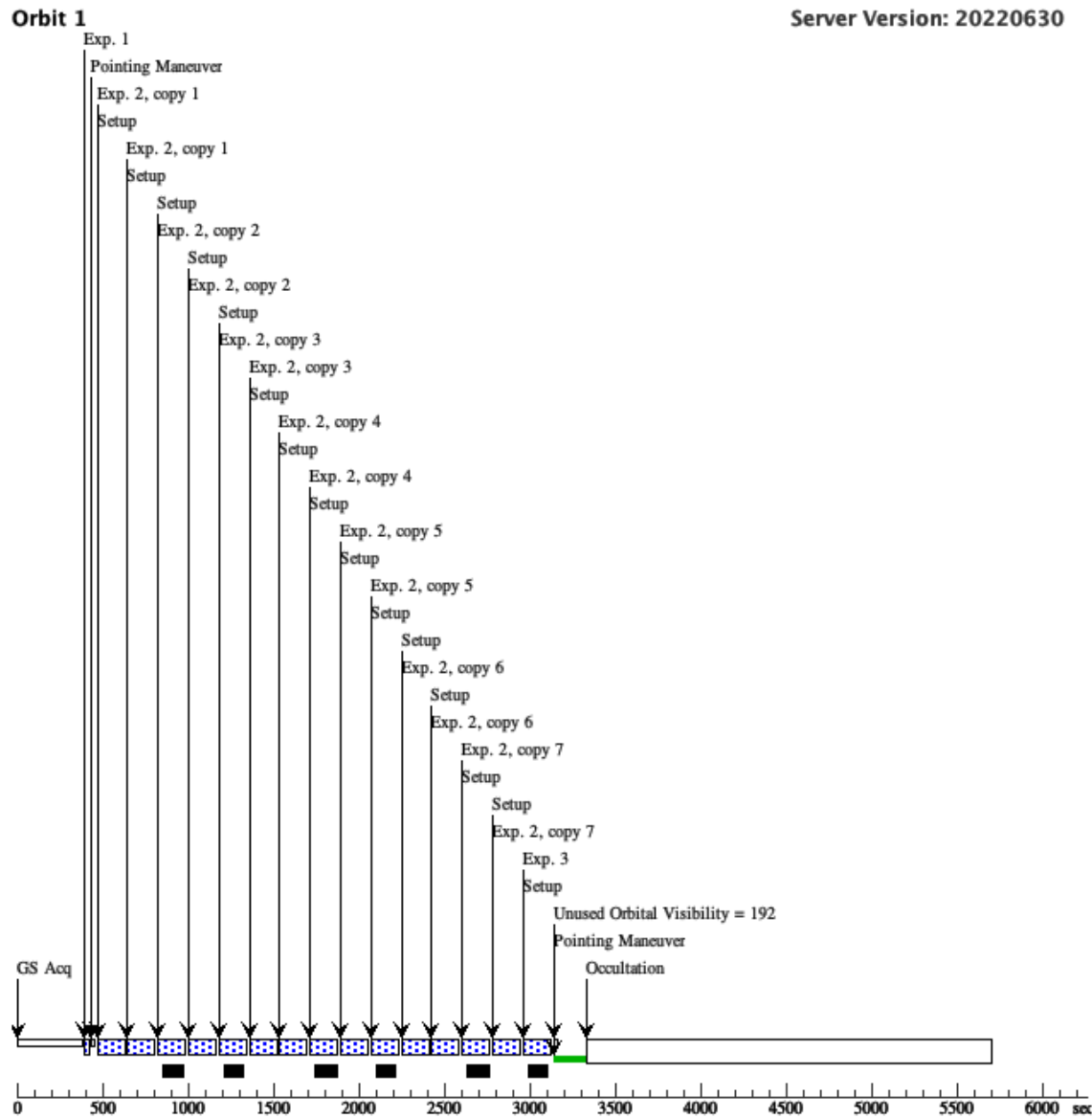
Visit	Proposal 15814, TOI-270c Transit (Feb 25) (08), completed					Mon Sep 26 21:02:41 GMT 2022
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/IR					
	Special Requirements: BETWEEN 24-FEB-2020:00:00:00 AND 27-FEB-2020:00:00:00; Period 5.660172 D AND ZERO-PHASE HJD2458904.605496					
Diagnostics	(TOI-270c Transit (Feb 25) (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(TOI-270c Transit (Feb 25) (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d)	Proper Motion RA: 82.944 mas/yr	V=12.617	Reference Frame: ICRS
			Dec: -51 57 22.44 (-51.95623d)	Proper Motion Dec: -269.755 mas/yr	J=9.099,	
			Equinox: J2000	Epoch of Position: 2015.5	H=8.531	
	Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand.					
Category=STAR						
Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

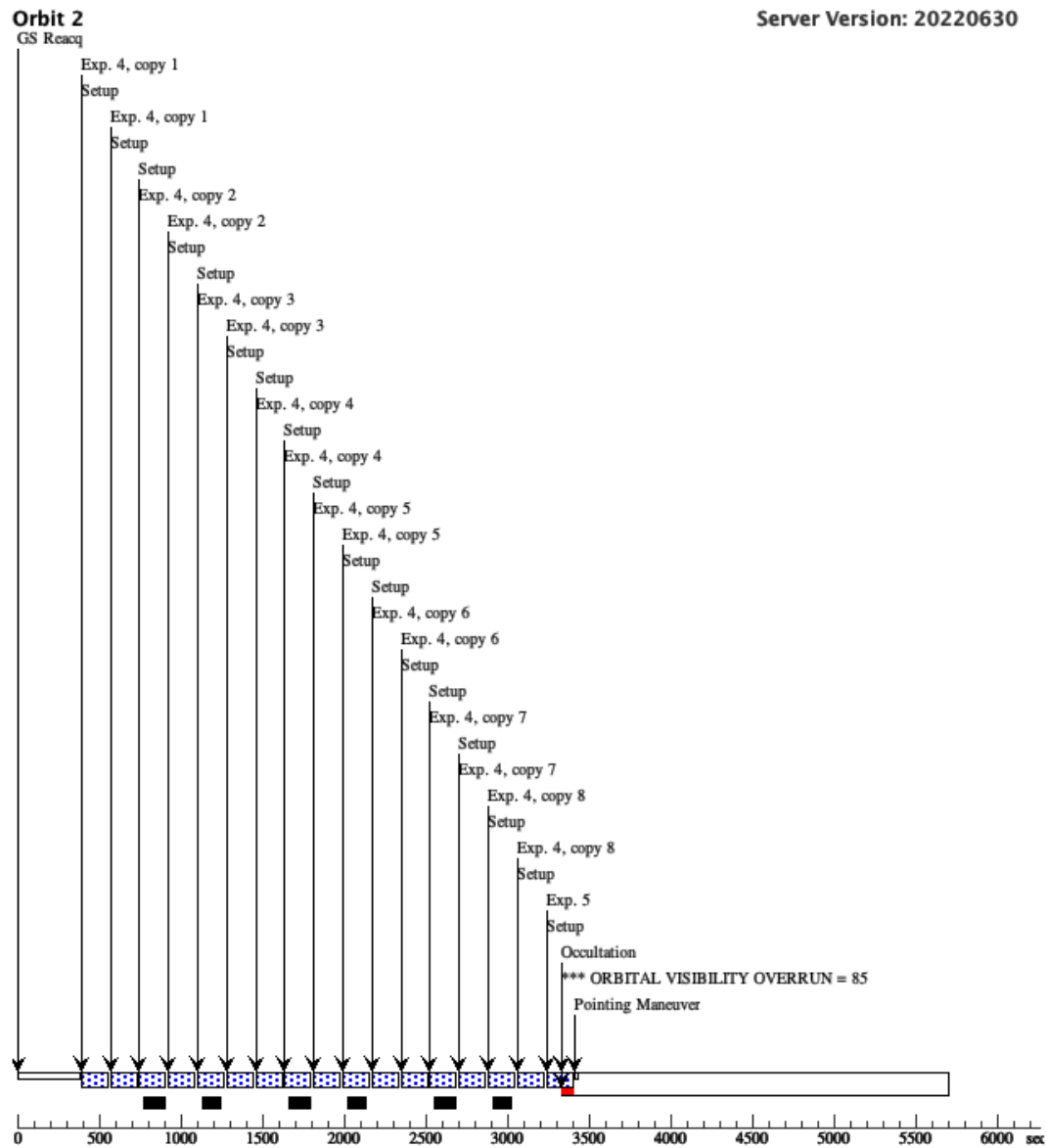
Proposal 15814 - TOI-270c Transit (Feb 25) (08) - Atmospheric characterization of two temperate mini-Neptunes formed in the same p...

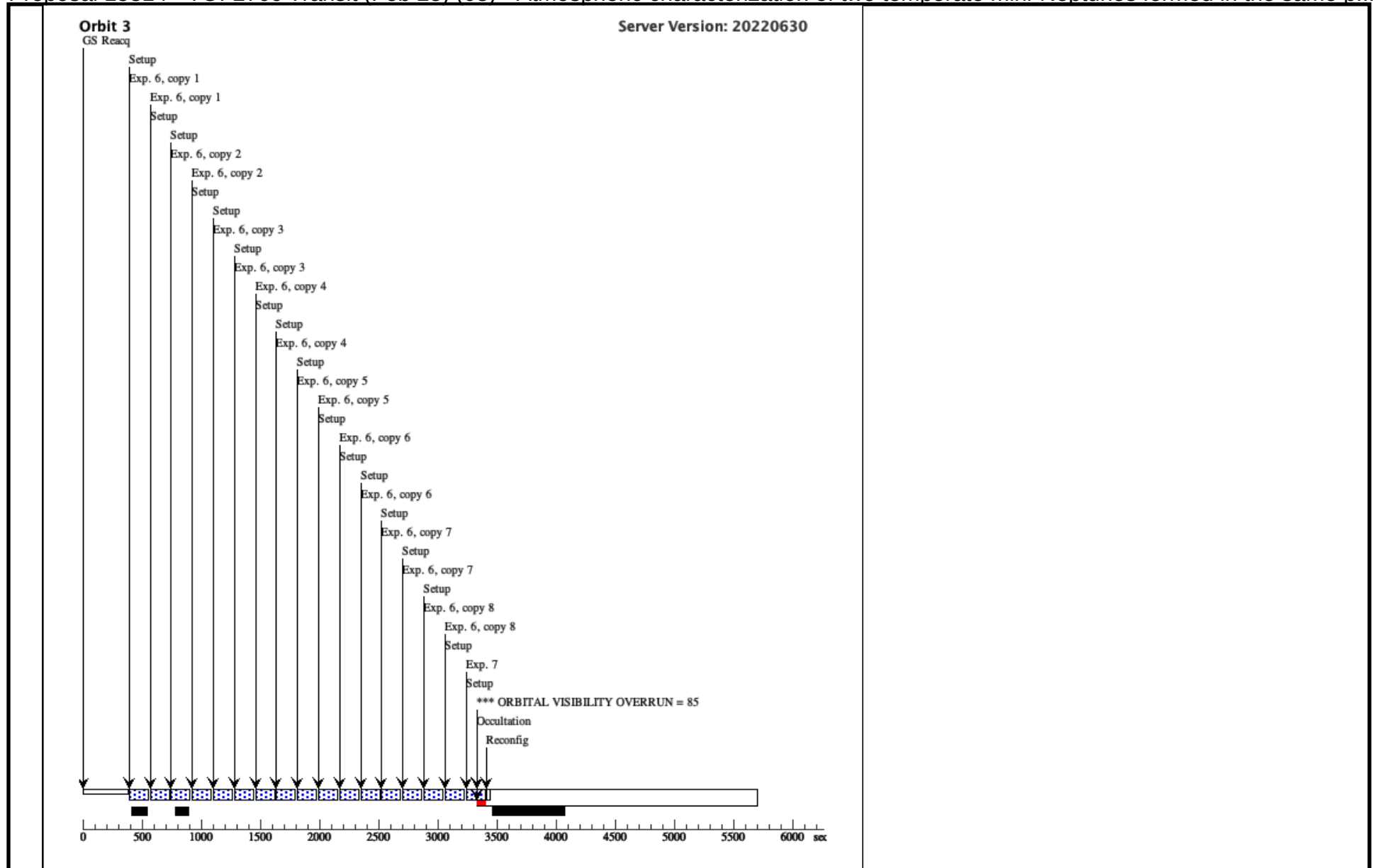
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270c Transit (Feb 25) (08)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270c Transit (Feb 25) (08)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[1]
	3	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270c Transit (Feb 25) (08)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-5 Non-Int in TOI-270c Transit (Feb 25) (08)	138.380533 Secs X 8 (2214.089 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[2]

Proposal 15814 - TOI-270c Transit (Feb 25) (08) - Atmospheric characterization of two temperate mini-Neptunes formed in the same p...

5	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward; PHASE 0.00044 TO 0.00524	Sequence 4-5 Non-In t in TOI-270c Transit (Feb 25) (08)	138.380533 Secs (138.381 Secs) [==>]	[2]
6	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 6-7 Non-In t in TOI-270c Transit (Feb 25) (08)	138.380533 Secs X 8 (2214.089 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[3]
7	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward	Sequence 6-7 Non-In t in TOI-270c Transit (Feb 25) (08)	138.380533 Secs (138.381 Secs) [==>]	[3]







Proposal 15814 - TOI-270c Transit (Apr 21) (14) - Atmospheric characterization of two temperate mini-Neptunes formed in the same p...

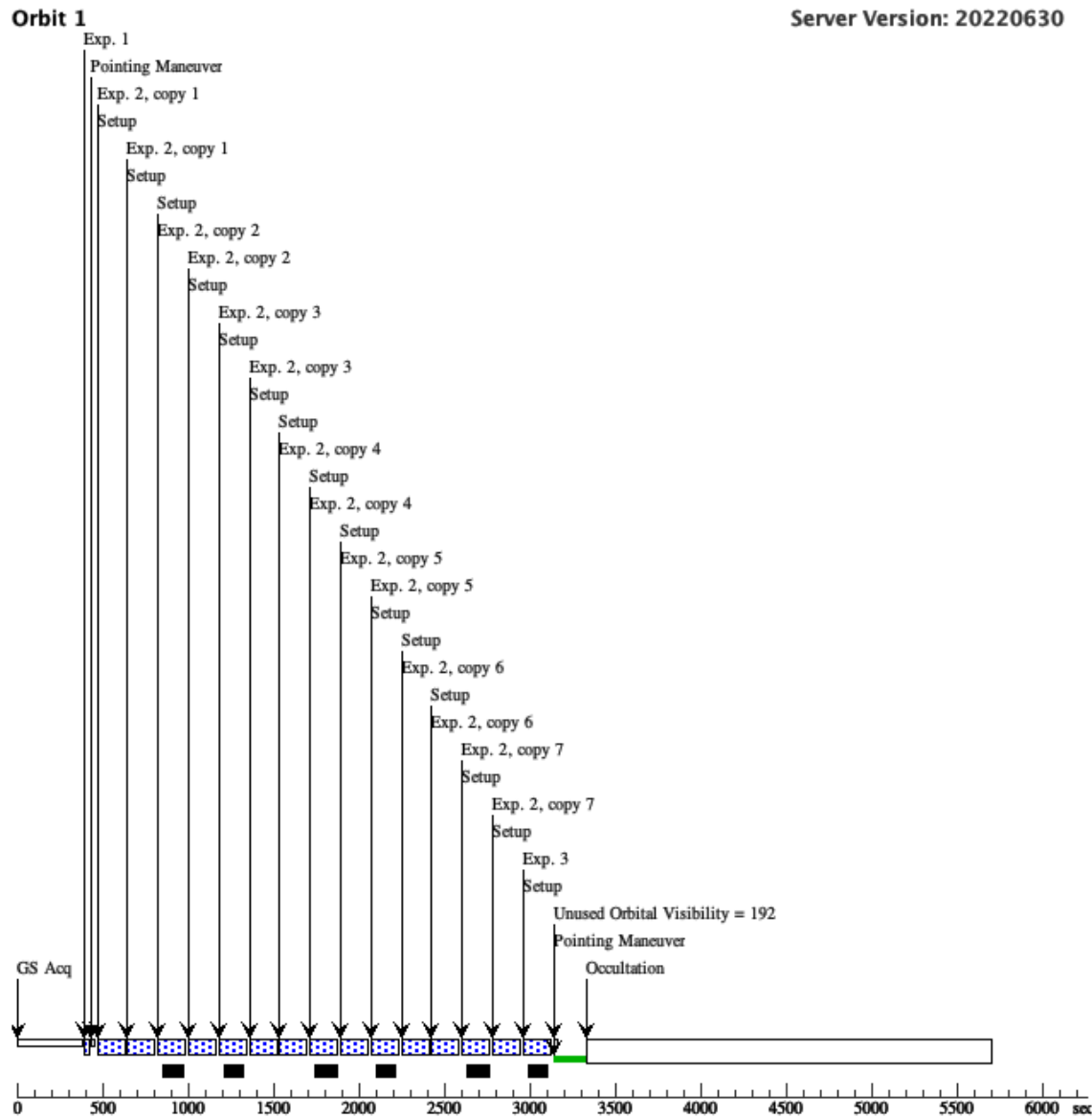
Visit	Proposal 15814, TOI-270c Transit (Apr 21) (14), completed					Mon Sep 26 21:02:41 GMT 2022
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/IR					
	Special Requirements: BETWEEN 20-APR-2020:00:00:00 AND 23-APR-2020:00:00:00; Period 5.660172 D AND ZERO-PHASE HJD2458961.217112					
Diagnostics	(TOI-270c Transit (Apr 21) (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(TOI-270c Transit (Apr 21) (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d)	Proper Motion RA: 82.944 mas/yr	V=12.617	Reference Frame: ICRS
			Dec: -51 57 22.44 (-51.95623d)	Proper Motion Dec: -269.755 mas/yr	J=9.099,	
			Equinox: J2000	Epoch of Position: 2015.5	H=8.531	
	Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM]					

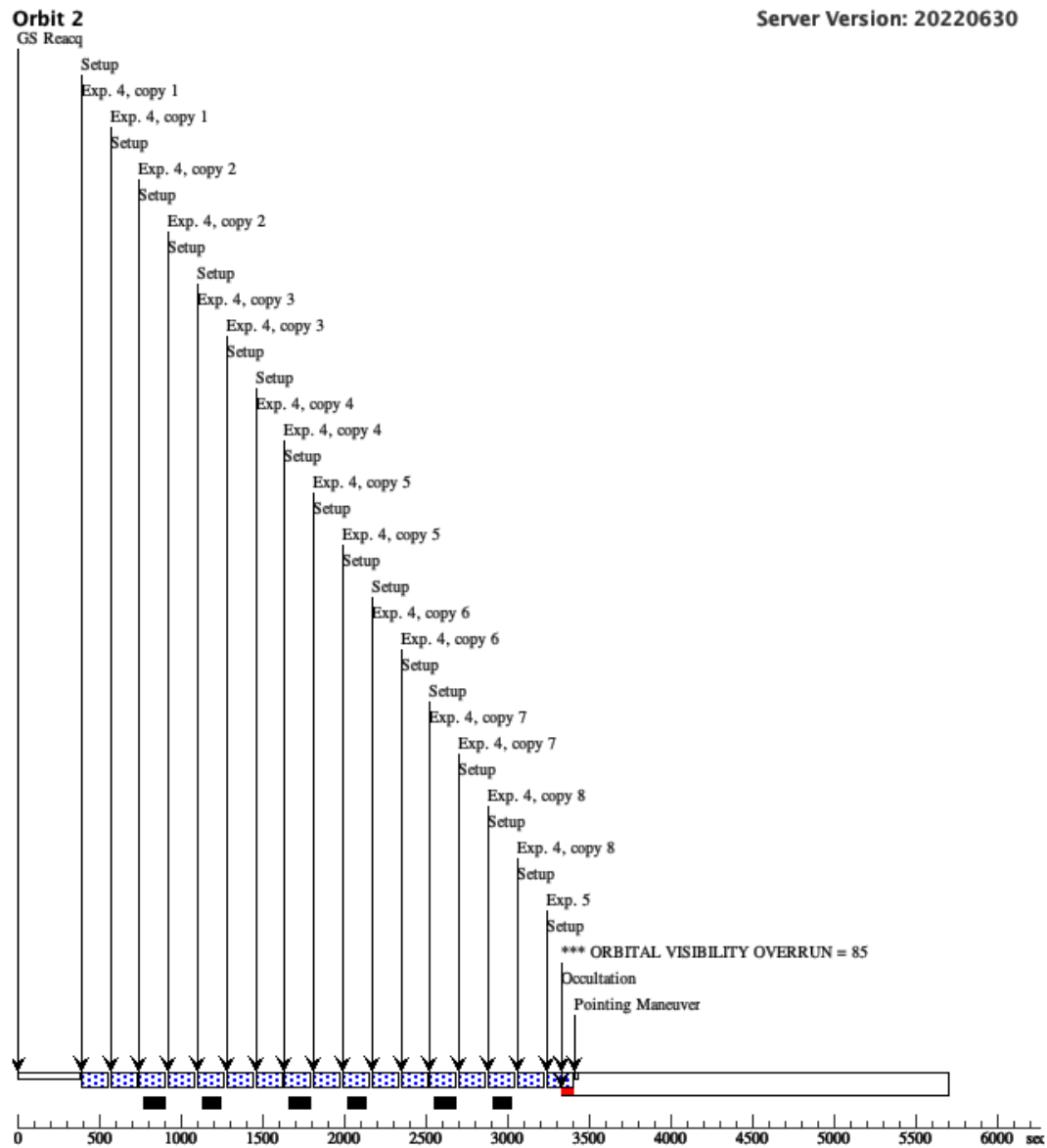
Proposal 15814 - TOI-270c Transit (Apr 21) (14) - Atmospheric characterization of two temperate mini-Neptunes formed in the same p...

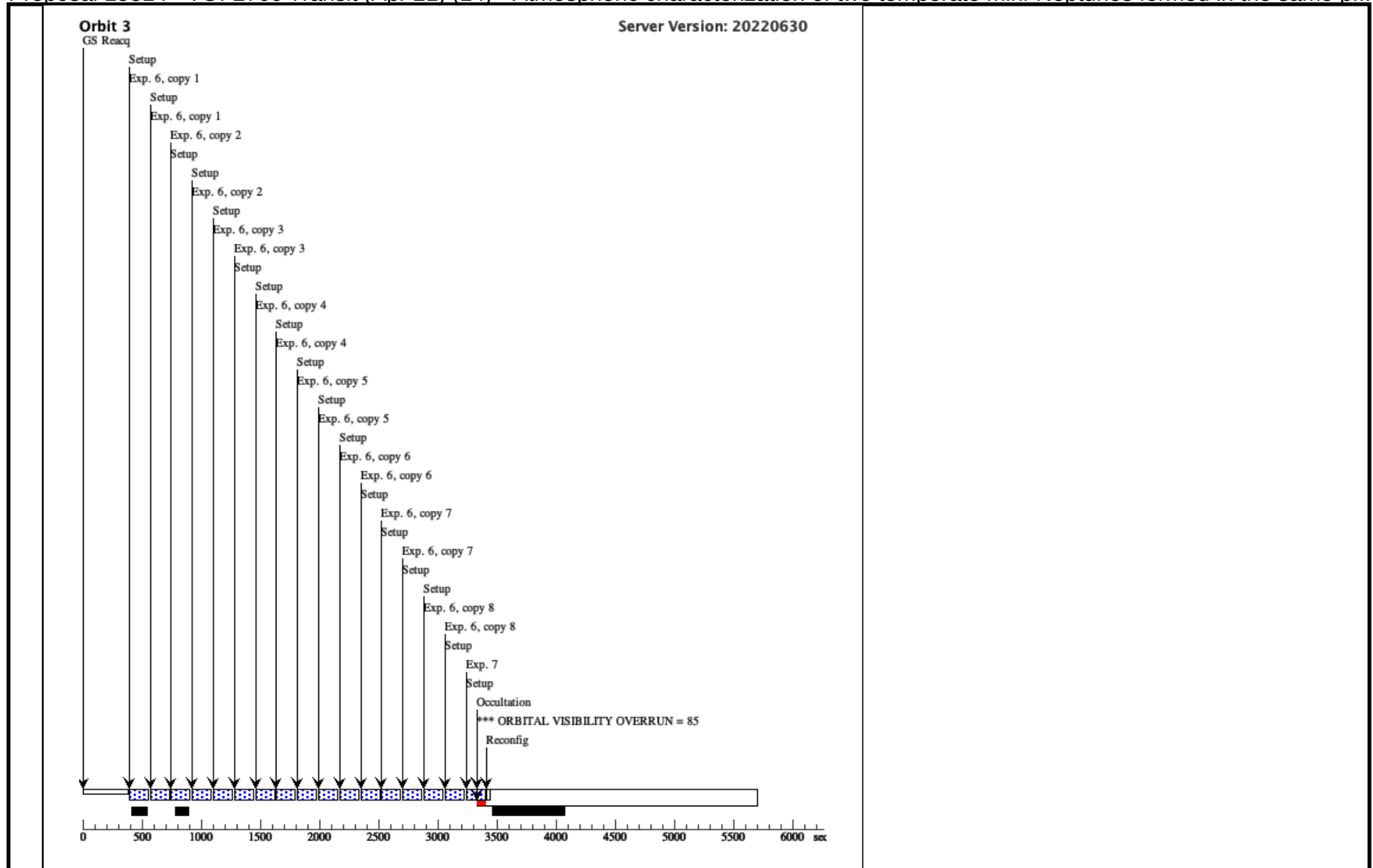
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270c Transit (Apr 21) (14)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270c Transit (Apr 21) (14)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[1]
	3	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270c Transit (Apr 21) (14)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-5 Non-Int in TOI-270c Transit (Apr 21) (14)	138.380533 Secs X 8 (2214.089 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[2]

Proposal 15814 - TOI-270c Transit (Apr 21) (14) - Atmospheric characterization of two temperate mini-Neptunes formed in the same p...

5	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward; PHASE 0.00044 TO 0.00524	Sequence 4-5 Non-In t in TOI-270c Transit (Apr 21) (14)	138.380533 Secs (138.381 Secs) [==>]	[2]
6	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 6-7 Non-In t in TOI-270c Transit (Apr 21) (14)	138.380533 Secs X 8 (2214.089 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[3]
7	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward	Sequence 6-7 Non-In t in TOI-270c Transit (Apr 21) (14)	138.380533 Secs (138.381 Secs) [==>]	[3]

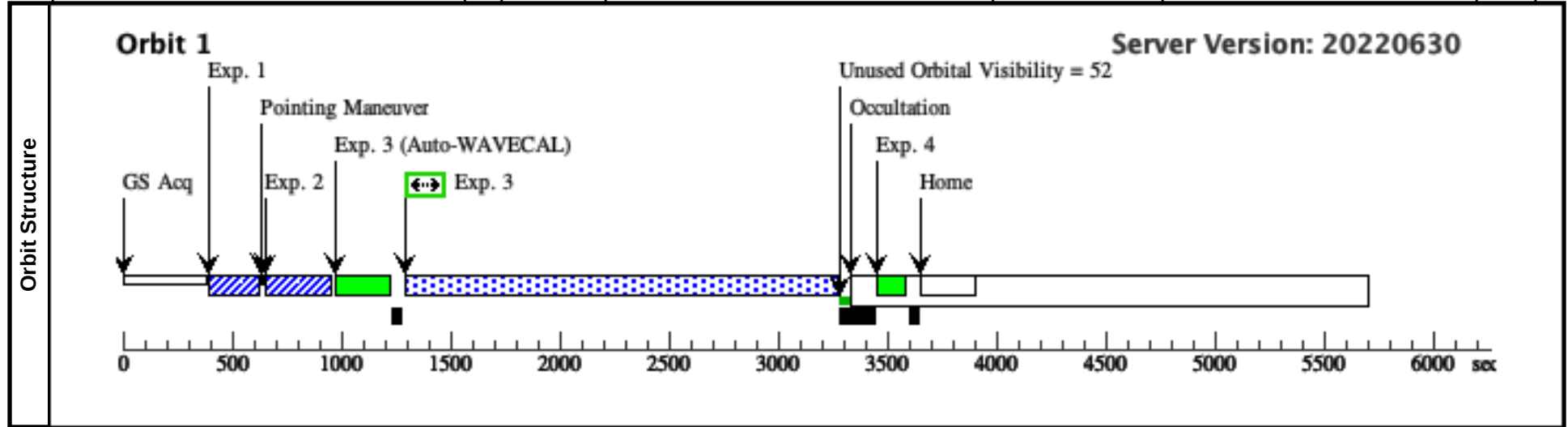






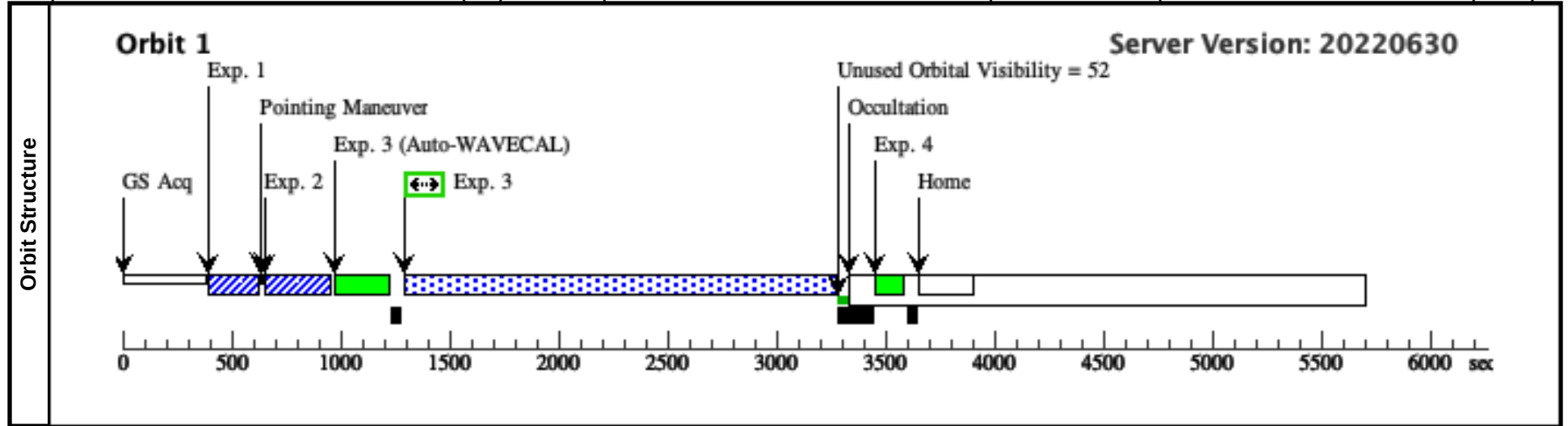
Proposal 15814 - TOI-270 STIS UV #1 (40) - Atmospheric characterization of two temperate mini-Neptunes formed in the same protop...

Visit	Proposal 15814, TOI-270 STIS UV #1 (40), completed						Mon Sep 26 21:02:42 GMT 2022			
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA									
	Special Requirements: (none)									
	Comments: In this UV observation, we will measure the Lyman-alpha flux from the host star.									
	These observations must be scheduled far from times of transit by the three known planets in the TOI-270 system. The transit ephemerides for these planets are:									
Fixed Targets	1. Planet b									
	Transit mid-time (JD) = 2458461.01464									
	Orbital period (day) = 3.360080									
	2. Planet c									
	Transit mid-time (JD) = 2458463.08481									
	Orbital period (day) = 5.660172									
Exposures	3. Planet d									
	Transit mid-time (JD) = 2458469.33834									
	Orbital period (day) = 11.38014									
	In practice it might make sense for this UV observation to be scheduled and then a check performed that it does not coincide with transits by any of the three known planets.									
	# Name Target Coordinates Targ. Coord. Corrections Fluxes Miscellaneous									
	(1) TOI-270 RA: 04 33 39.7202 (68.4155008d) Proper Motion RA: 82.944 mas/yr V=12.617 Reference Frame: ICRS									
Dec: -51 57 22.44 (-51.95623d) Proper Motion Dec: -269.755 mas/yr J=9.099,										
Equinox: J2000 Epoch of Position: 2015.5 H=8.531										
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand.										
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.137 0814)	(1) TOI-270	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT		Sequence 1-4 Non-Int in TOI-270 STIS UV #1 (40)	1 Secs (1 Secs) [==>]	[1]
	Comments: The ETC quotes a time to saturation of 2.25s. Our 1.0s exposure time for the ACQ should reach 44% of saturation and achieve a SNR~400.									
	2	Acq-Peak (STIS.ta.137 0816)	(1) TOI-270	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR			Sequence 1-4 Non-Int in TOI-270 STIS UV #1 (40)	1 Secs (1 Secs) [==>]	[1]
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 4.32s and a total count rate of 135,035 e/s. With our 1.0s exposures, we should reach 135,035 source electrons, sufficient for peak-up but still well below saturation.									
	3	Science (STIS.sp.13 70834)	(1) TOI-270	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=9400		Sequence 1-4 Non-Int in TOI-270 STIS UV #1 (40)	1960 Secs (1960 Secs) [==>]	[1]
4	Wave-Cal	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in TOI-270 STIS UV #1 (40)	[==>]	[1]	



Proposal 15814 - TOI-270 STIS UV #2 (41) - Atmospheric characterization of two temperate mini-Neptunes formed in the same protop...

Visit	Proposal 15814, TOI-270 STIS UV #2 (41), completed										Mon Sep 26 21:02:42 GMT 2022
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA										
	Special Requirements: (none)										
	Comments: In this UV observation, we will measure the Lyman-alpha flux from the host star.										
Fixed Targets	These observations must be scheduled far from times of transit by the three known planets in the TOI-270 system. The transit ephemerides for these planets are:										
	1. Planet b Transit mid-time (JD) = 2458461.01464 Orbital period (day) = 3.360080										
	2. Planet c Transit mid-time (JD) = 2458463.08481 Orbital period (day) = 5.660172										
	3. Planet d Transit mid-time (JD) = 2458469.33834 Orbital period (day) = 11.38014										
	In practice it might make sense for this UV observation to be scheduled and then a check performed that it does not coincide with transits by any of the three known planets.										
Exposures	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS					
	Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand.										
	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.137 0814)	(1) TOI-270	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT		Sequence 1-4 Non-Int in TOI-270 STIS UV #2 (41)	1 Secs (1 Secs) [==>]	[1]	
	Comments: The ETC quotes a time to saturation of 2.25s. Our 1.0s exposure time for the ACQ should reach 44% of saturation and achieve a SNR~400.										
	2	Acq-Peak (STIS.ta.137 0816)	(1) TOI-270	STIS/CCD, ACQ/PEAK, 52X0.05	MIRROR			Sequence 1-4 Non-Int in TOI-270 STIS UV #2 (41)	1 Secs (1 Secs) [==>]	[1]	
	Comments: The ETC lists a time to saturation through the 52X0.05 slit of 4.32s and a total count rate of 135,035 e/s. With our 1.0s exposures, we should reach 135,035 source electrons, sufficient for peak-up but still well below saturation.										
Exposures	3	Science (STIS.sp.13 70834)	(1) TOI-270	STIS/FUV-MAMA, TIME-TAG, 52X0.05	G140M 1222 A	BUFFER-TIME=9400		Sequence 1-4 Non-Int in TOI-270 STIS UV #2 (41)	1960 Secs (1960 Secs) [==>]	[1]	
	4	Wave-Cal	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140M 1222 A			Sequence 1-4 Non-Int in TOI-270 STIS UV #2 (41)	[==>]	[1]	



Proposal 15814 - TOI-270c Transit (Oct 2) (62) - Atmospheric characterization of two temperate mini-Neptunes formed in the same pr...

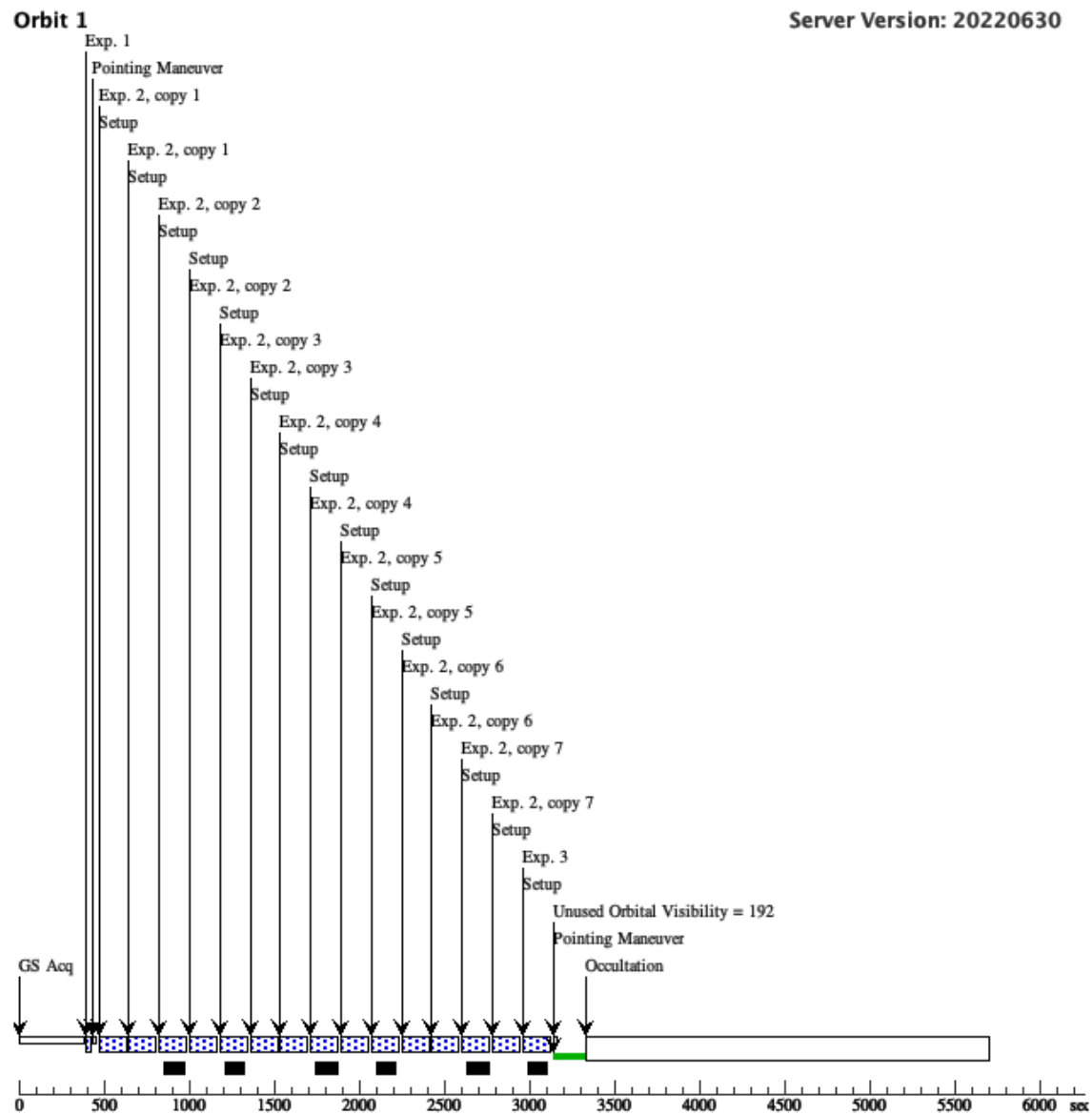
Visit	Proposal 15814, TOI-270c Transit (Oct 2) (62), completed Mon Sep 26 21:02:42 GMT 2022				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: BETWEEN 01-OCT-2020:00:00:00 AND 04-OCT-2020:00:00:00; Period 5.660172 D AND ZERO-PHASE HJD2459125.375033				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]					

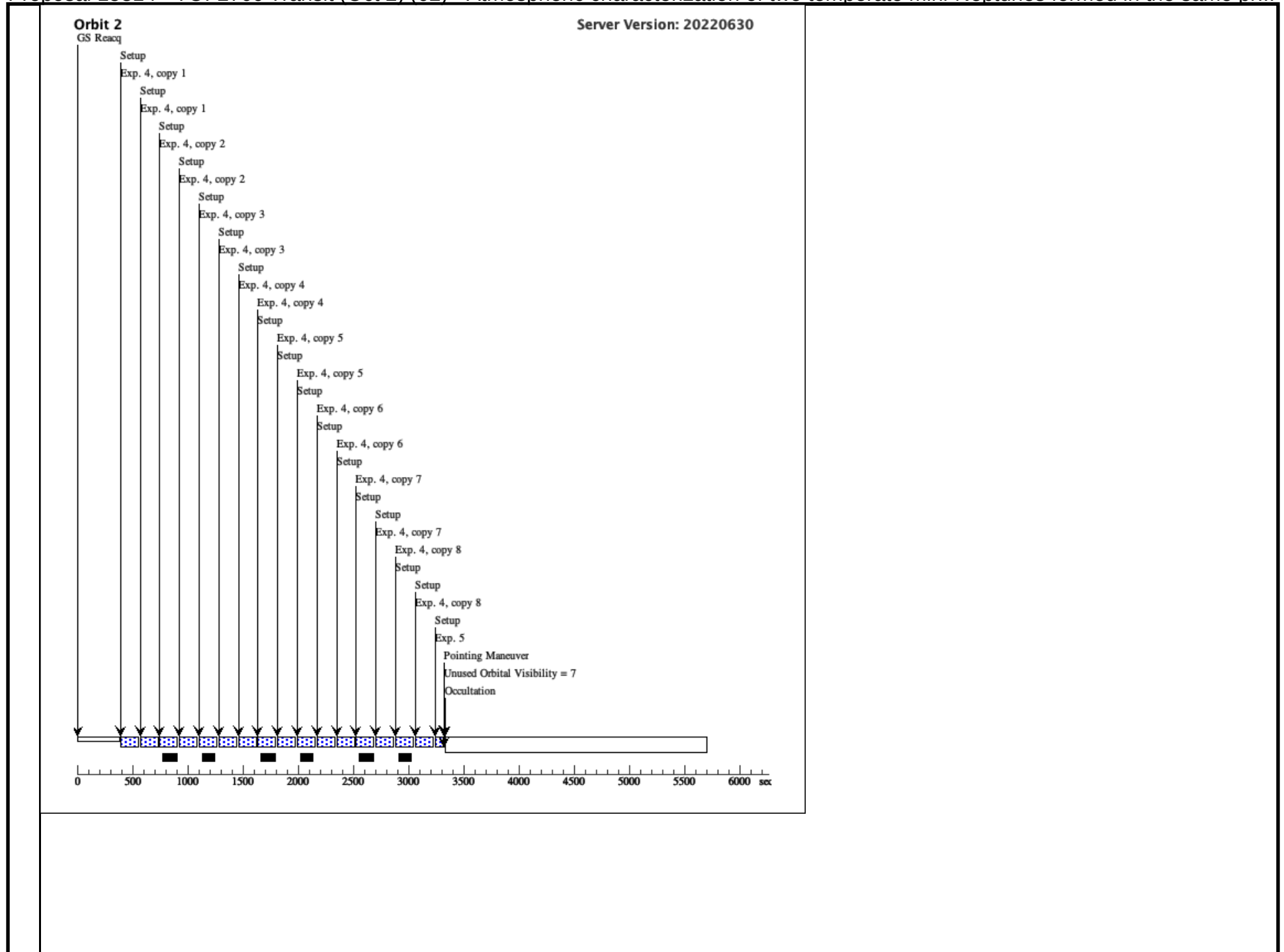
Proposal 15814 - TOI-270c Transit (Oct 2) (62) - Atmospheric characterization of two temperate mini-Neptunes formed in the same pr...

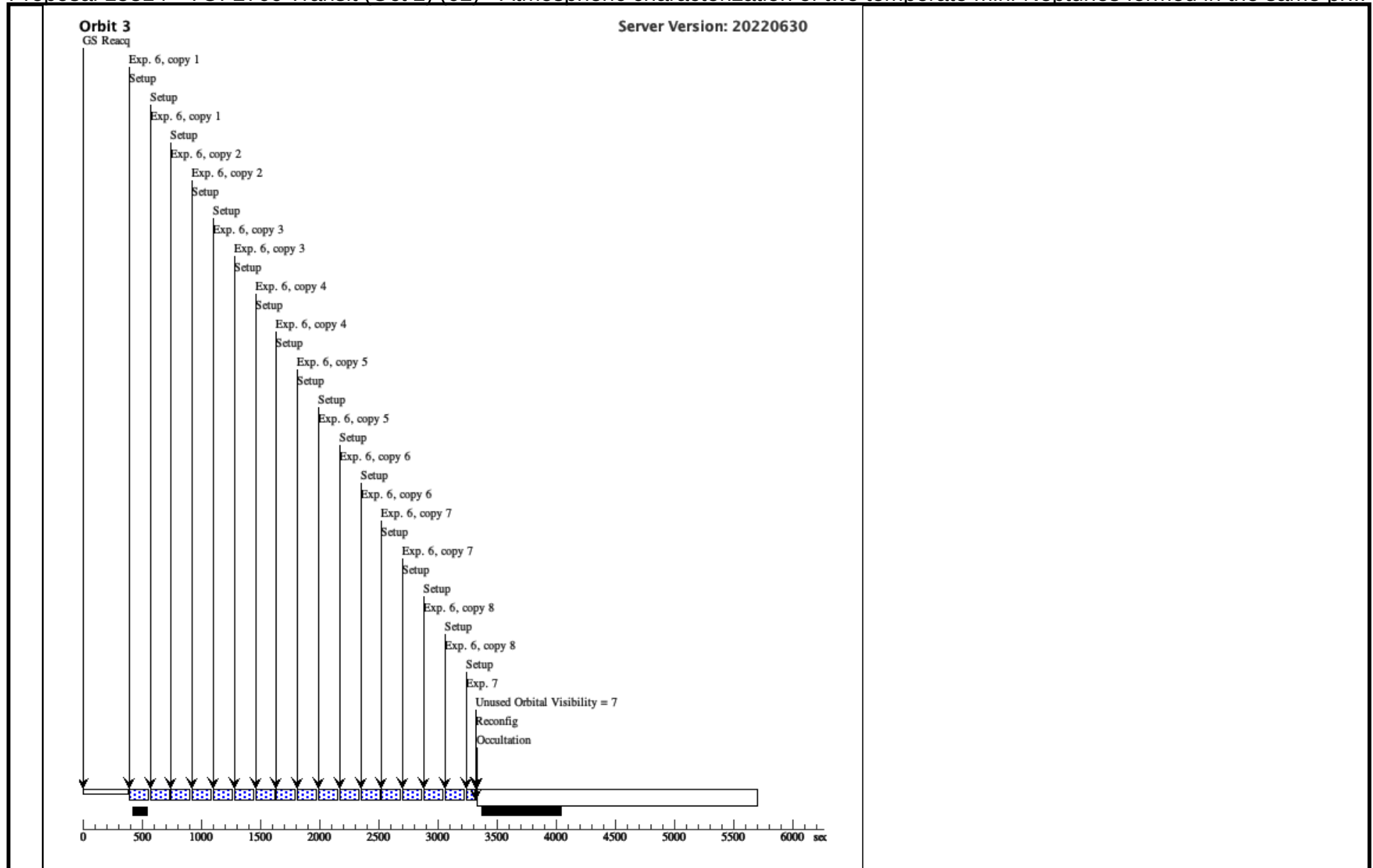
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270c Transit (Oct 2) (62)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270c Transit (Oct 2) (62)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[1]
	3	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270c Transit (Oct 2) (62)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-5 Non-Int in TOI-270c Transit (Oct 2) (62)	138.380533 Secs X 8 (2214.089 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[2]

Proposal 15814 - TOI-270c Transit (Oct 2) (62) - Atmospheric characterization of two temperate mini-Neptunes formed in the same pr...

5	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=3; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward; PHASE 0.00044 TO 0.00524	Sequence 4-5 Non-In t in TOI-270c Transit (Oct 2) (62)	46.695529 Secs (46.696 Secs) [==>]	[2]
6	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 6-7 Non-In t in TOI-270c Transit (Oct 2) (62)	138.380533 Secs X 8 (2214.089 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[3]
7	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=3; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward	Sequence 6-7 Non-In t in TOI-270c Transit (Oct 2) (62)	46.695529 Secs (46.696 Secs) [==>]	[3]







Proposal 15814 - TOI-270d Transit (Oct 6) (65) - Atmospheric characterization of two temperate mini-Neptunes formed in the same pr...

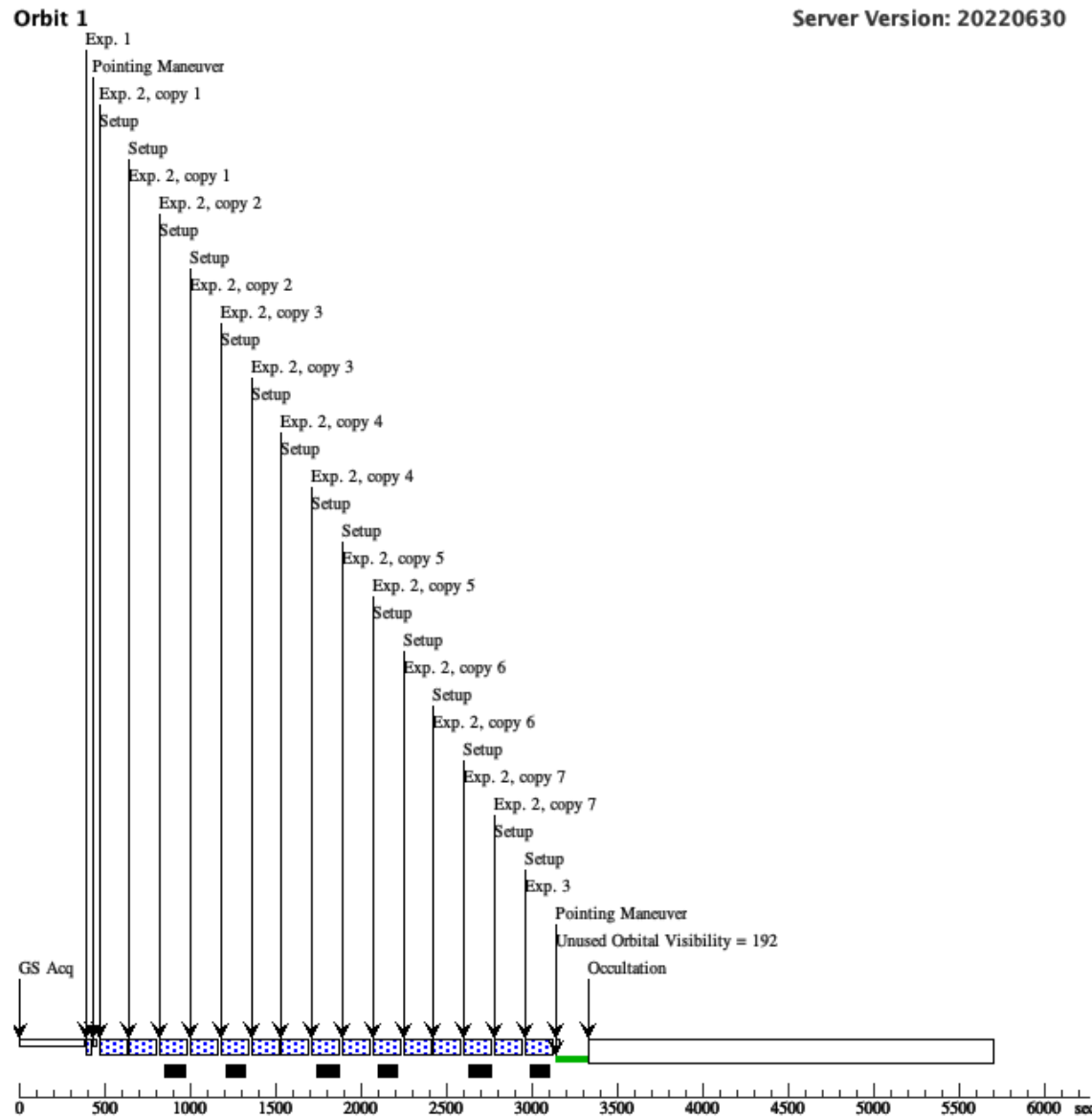
Visit	Proposal 15814, TOI-270d Transit (Oct 6) (65), completed Mon Sep 26 21:02:42 GMT 2022				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: BETWEEN 05-OCT-2020:00:00:00 AND 08-OCT-2020:00:00:00; Period 11.380140 D AND ZERO-PHASE HJD2459129.347606				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]					

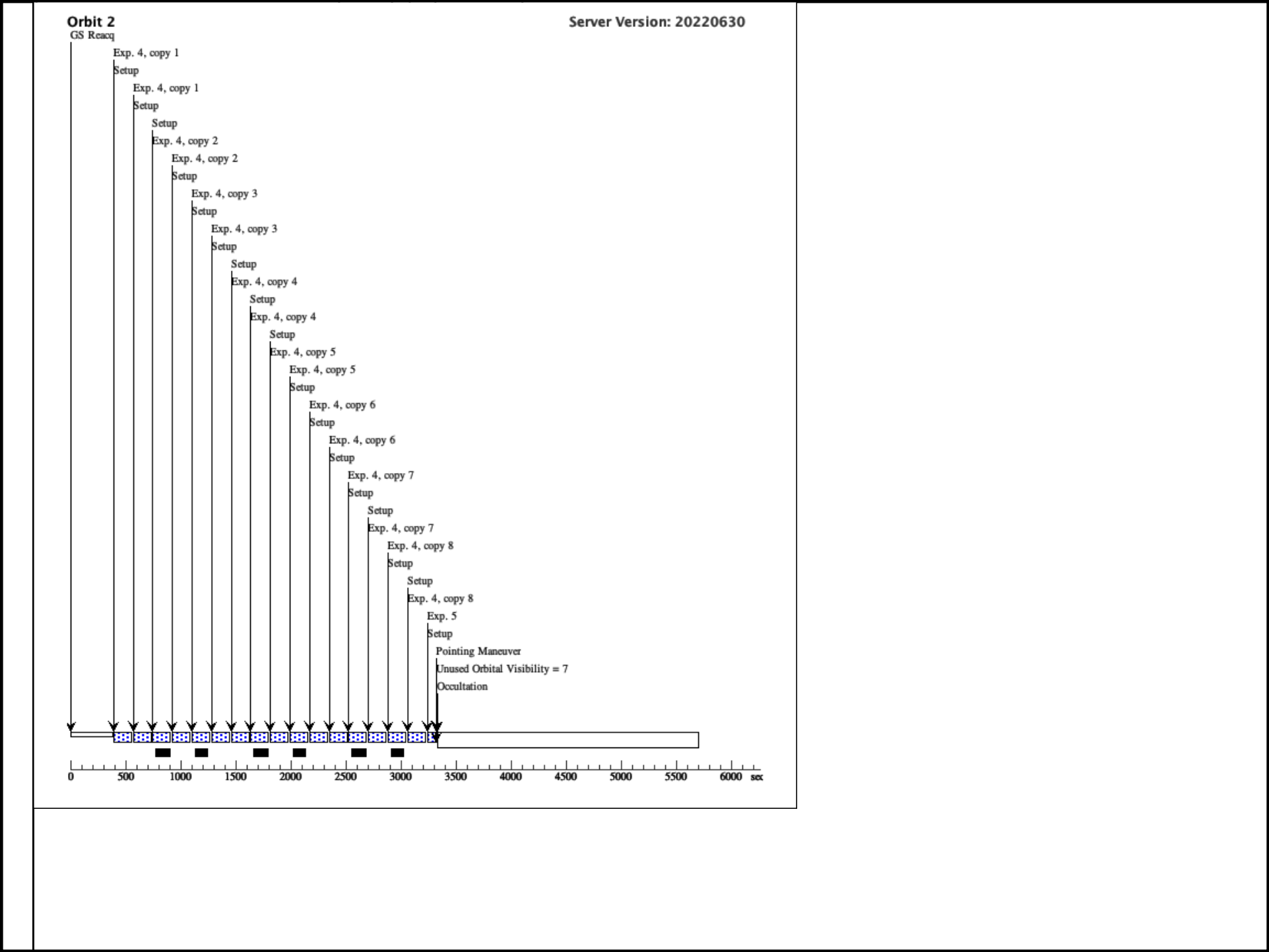
Proposal 15814 - TOI-270d Transit (Oct 6) (65) - Atmospheric characterization of two temperate mini-Neptunes formed in the same pr...

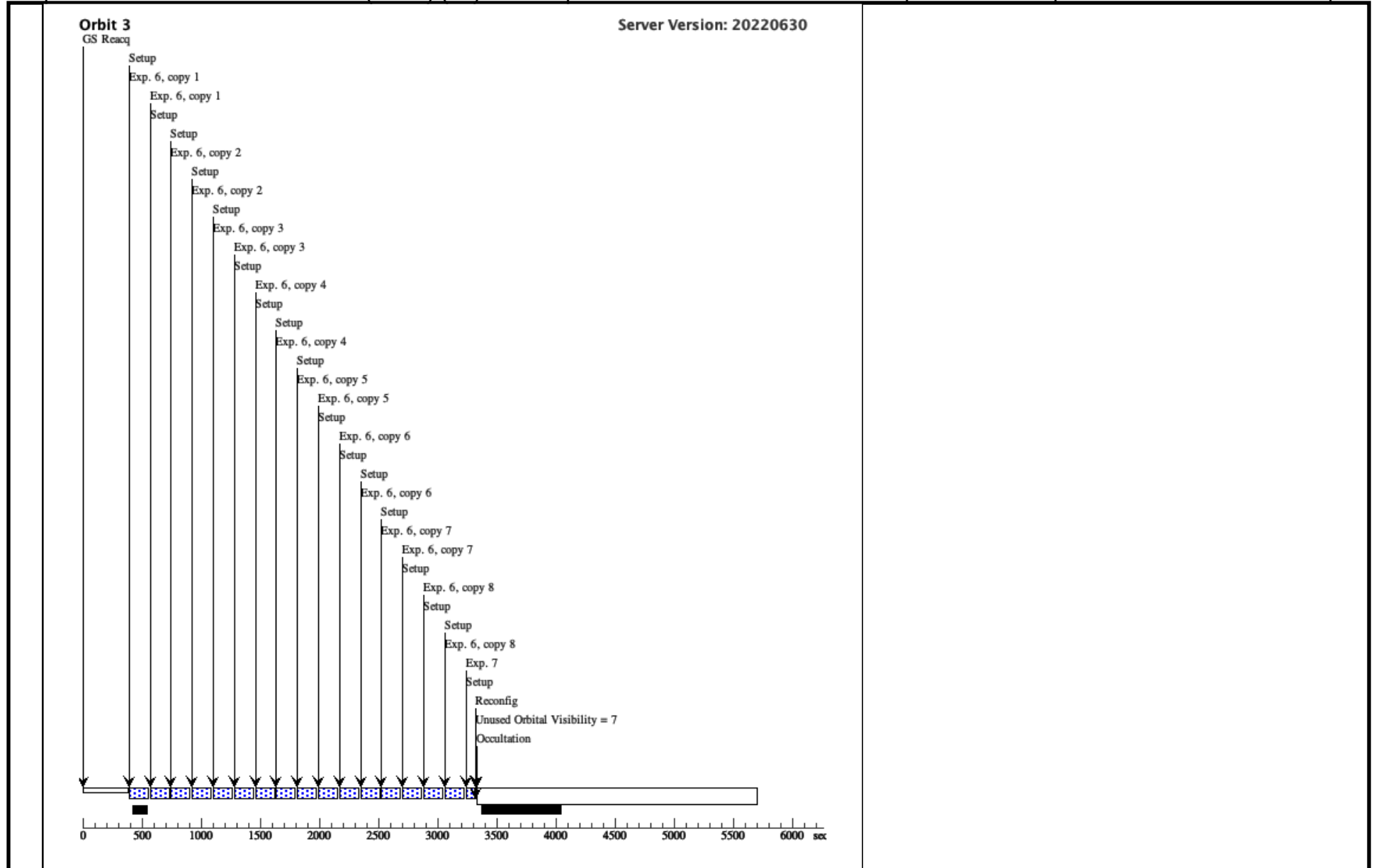
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-In t in TOI-270d Transi t (Oct 6) (65)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 1-3 Non-In t in TOI-270d Transi t (Oct 6) (65)	138.380533 Secs X 7 (1937.327 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[1]
	3	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward	Sequence 1-3 Non-In t in TOI-270d Transi t (Oct 6) (65)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 4-5 Non-In t in TOI-270d Transi t (Oct 6) (65)	138.380533 Secs X 8 (2214.089 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[2]

Proposal 15814 - TOI-270d Transit (Oct 6) (65) - Atmospheric characterization of two temperate mini-Neptunes formed in the same pr...

5	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=3; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward; PHASE 0.00041 TO 0.00221	Sequence 4-5 Non-In t in TOI-270d Transi t (Oct 6) (65)	46.695529 Secs (46.696 Secs) [==>]	[2]
6	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 6-7 Non-In t in TOI-270d Transi t (Oct 6) (65)	138.380533 Secs X 8 (2214.089 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[3]
7	Sci (WFC3IR.ss)	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=3; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,For ward	Sequence 6-7 Non-In t in TOI-270d Transi t (Oct 6) (65)	46.695529 Secs (46.696 Secs) [==>]	[3]







Proposal 15814 - TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C) - Atmospheric characterization of two temperate mini-Neptunes fo...

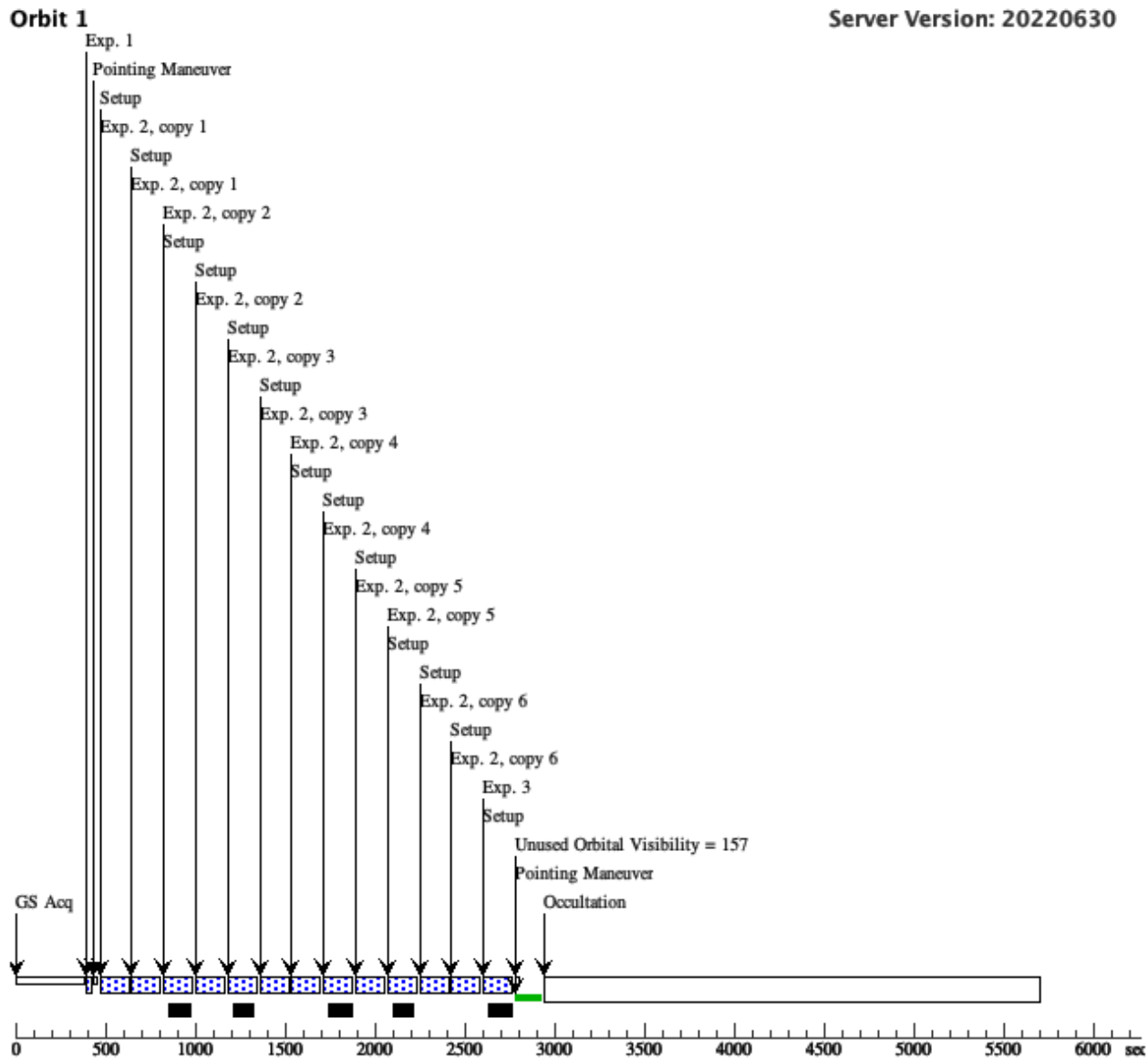
Visit	Proposal 15814, TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C), completed Mon Sep 26 21:02:42 GMT 2022				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 10-SEP-2022:00:00:00 AND 14-SEP-2022:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459834.903539				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]					

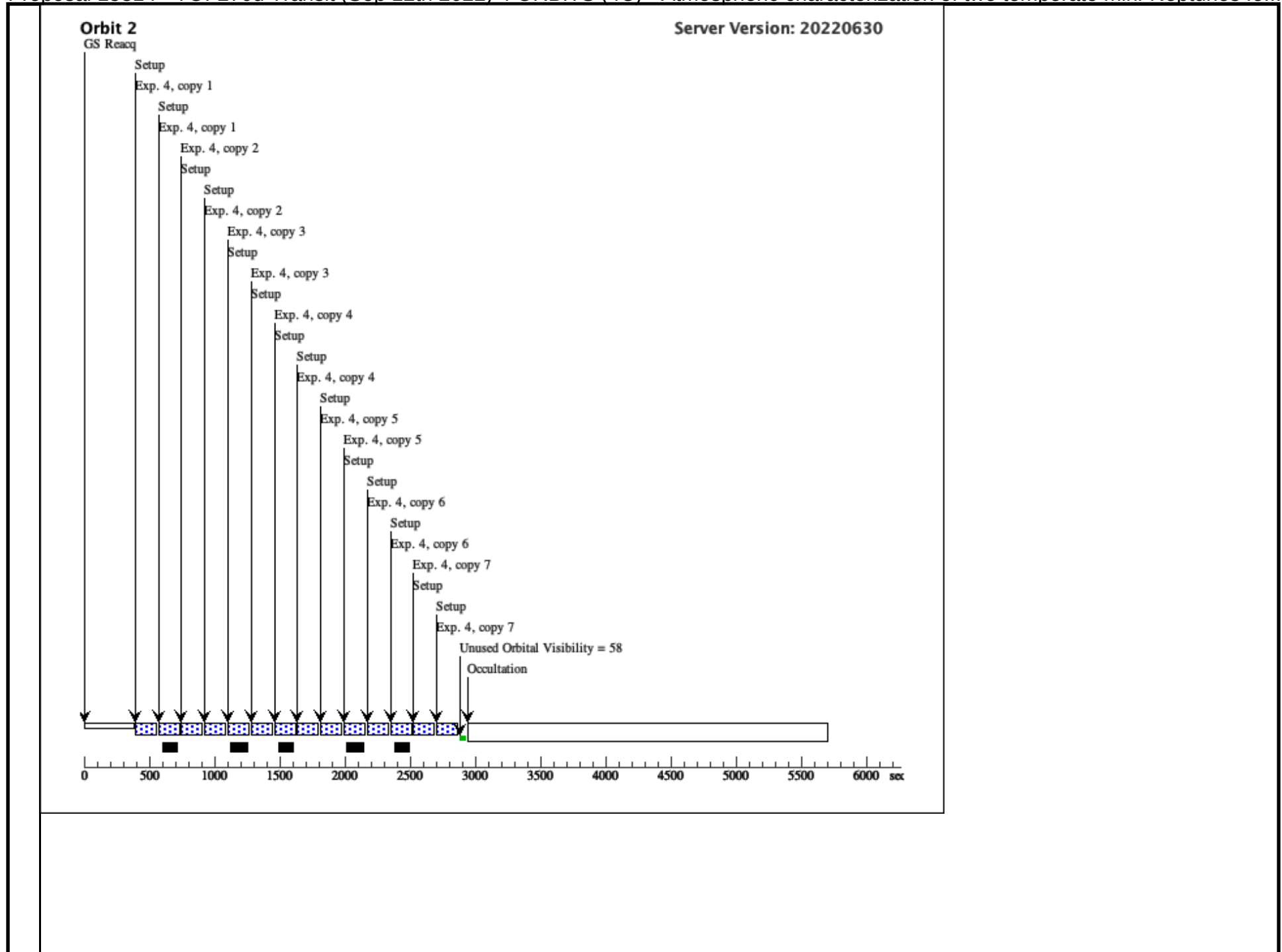
Proposal 15814 - TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C) - Atmospheric characterization of two temperate mini-Neptunes fo...

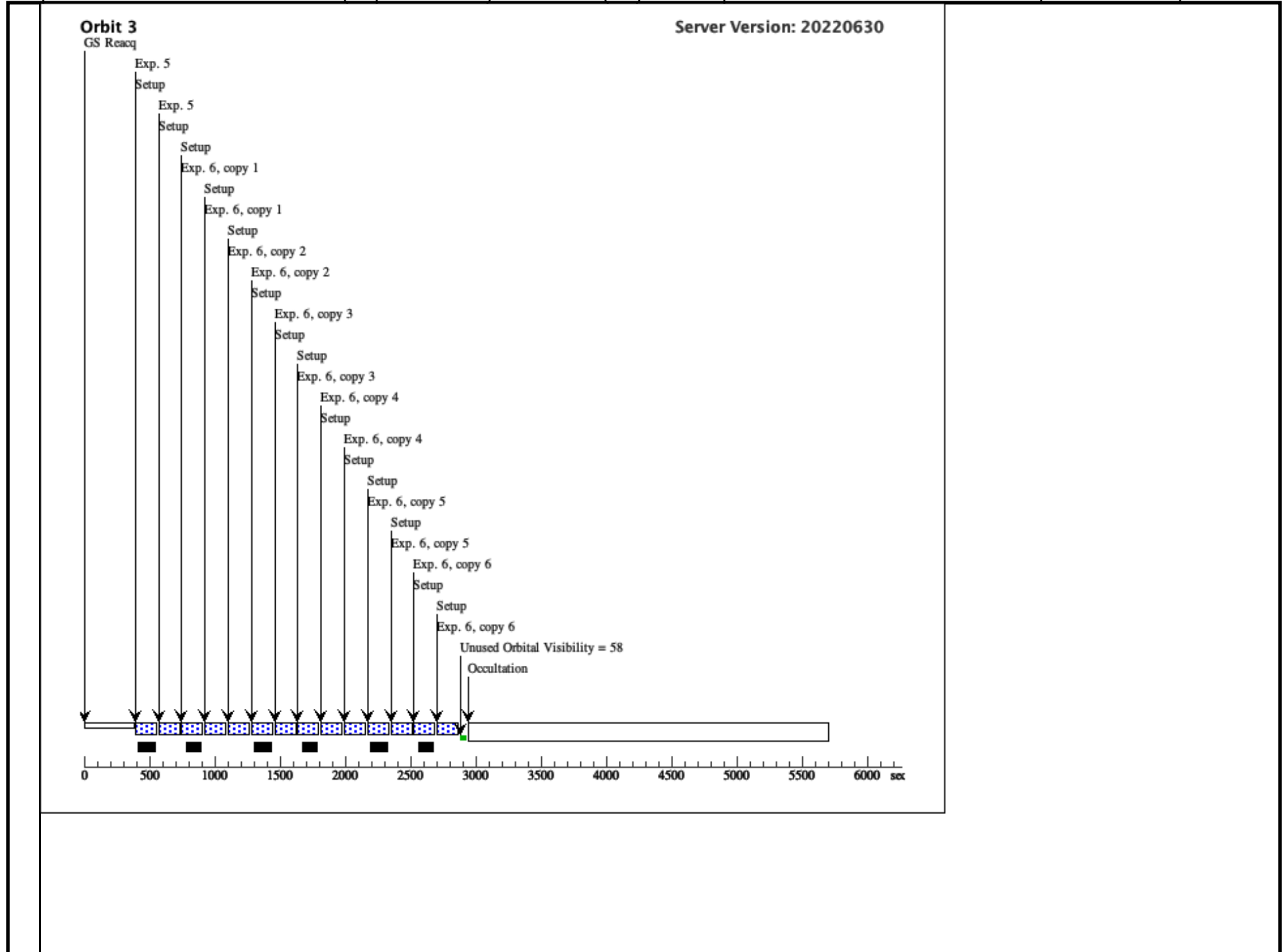
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

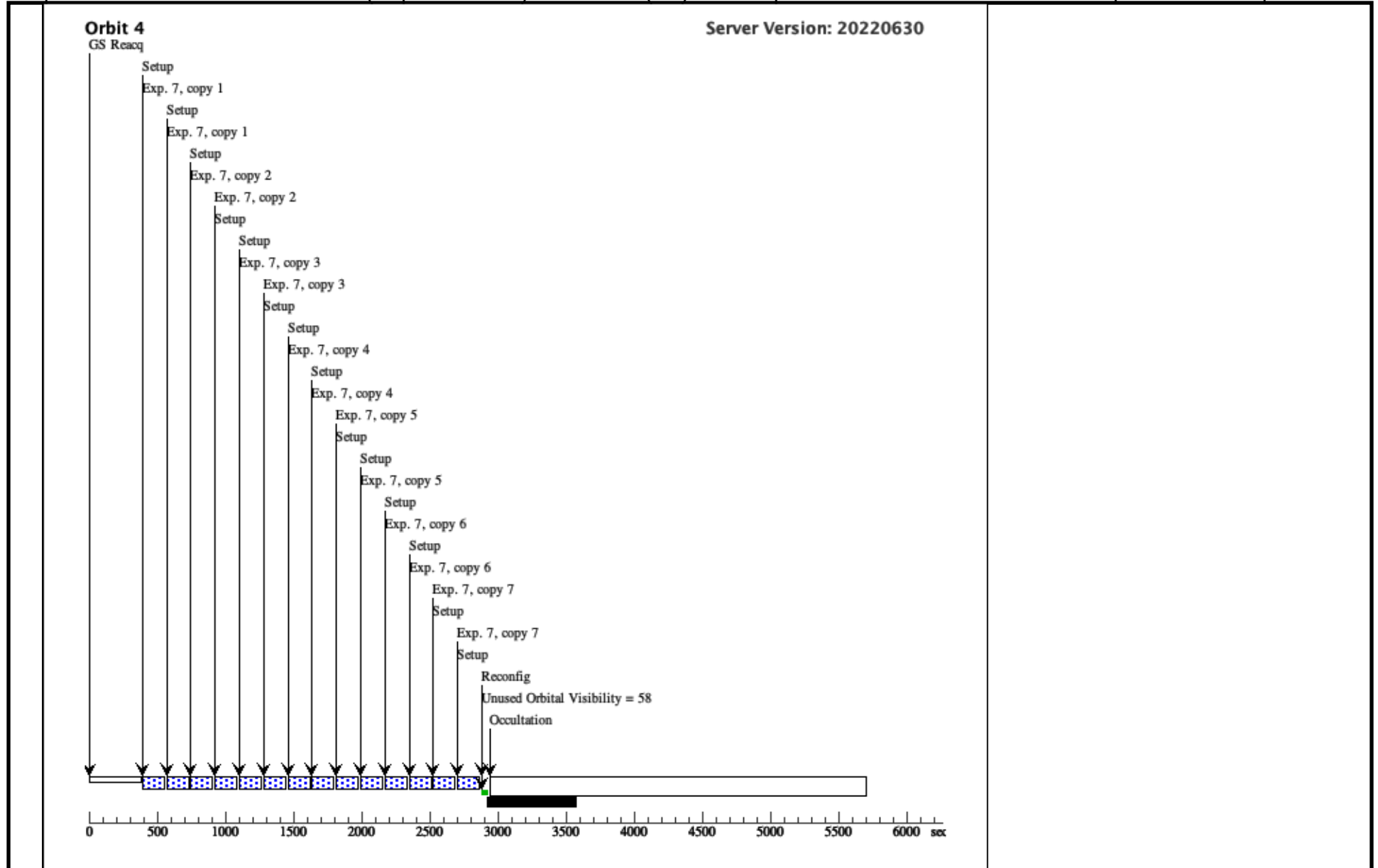
Proposal 15814 - TOI-270d Transit (Sep 12th 2022) 4 ORBITS (4C) - Atmospheric characterization of two temperate mini-Neptunes fo...

6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Sep 12th 2022) 4 ORBITS (4C)	138.380533 Secs X 6 (1660.566 Sec s)	
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[3]
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Sep 12th 2022) 4 ORBITS (4C)	138.380533 Secs X 7 (1937.327 Sec s)	
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[4]









Proposal 15814 - TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E) - Atmospheric characterization of two temperate mini-Neptunes for...

Visit	Proposal 15814, TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E), implementation					Mon Sep 26 21:02:42 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 03-OCT-2022:00:00:00 AND 07-OCT-2022:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459857.662721					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

Proposal 15814 - TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E) - Atmospheric characterization of two temperate mini-Neptunes for...

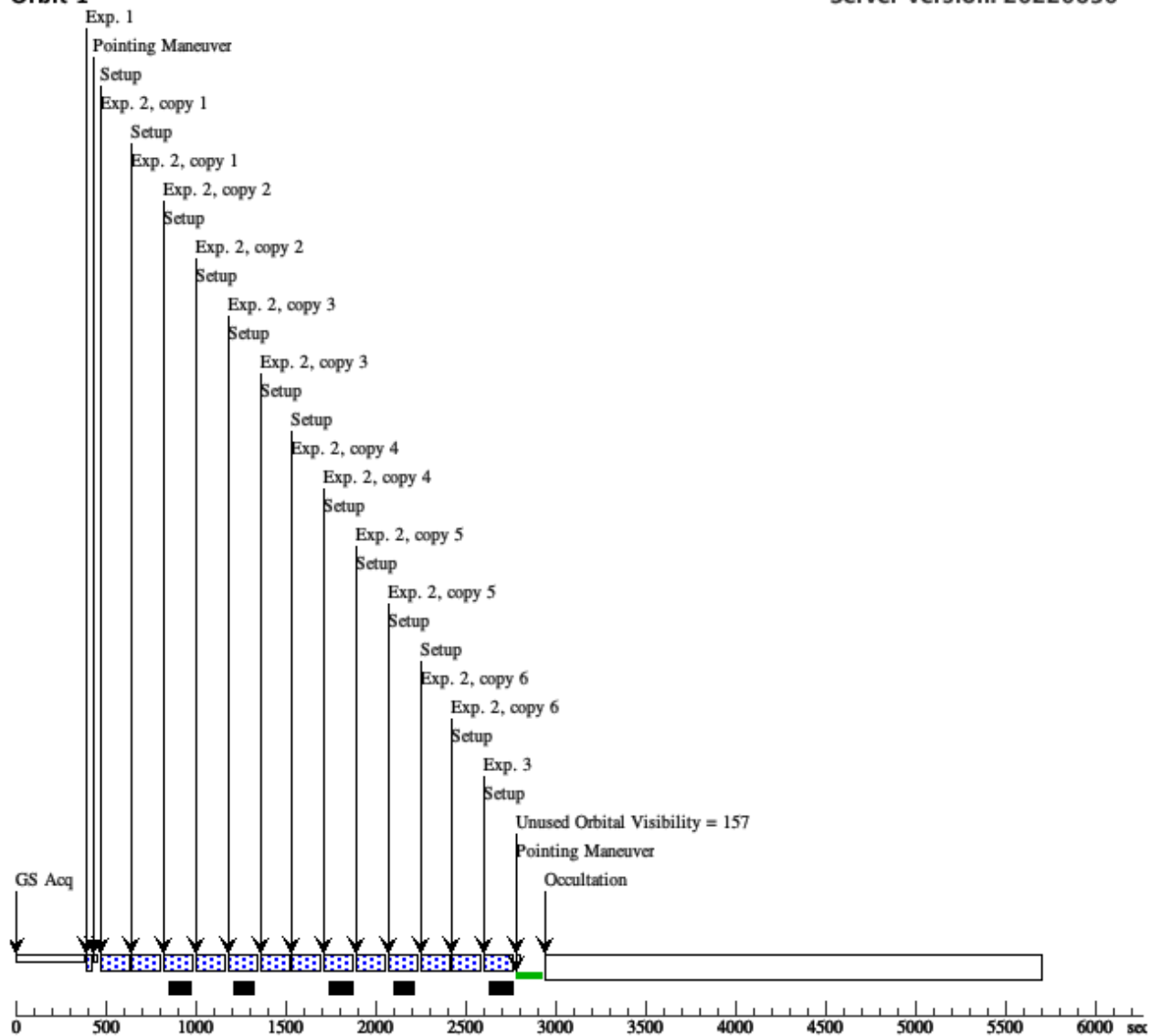
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

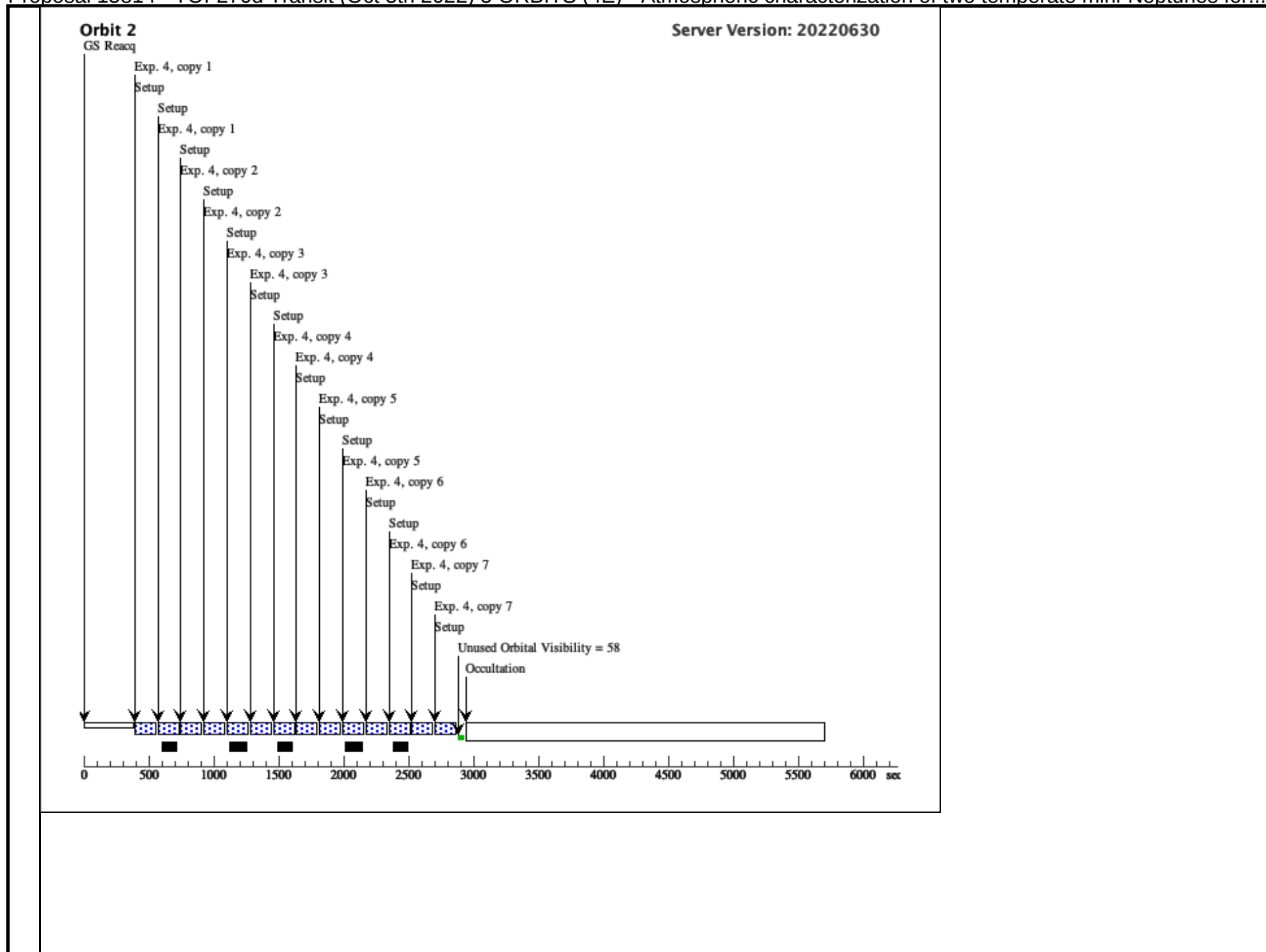
Proposal 15814 - TOI-270d Transit (Oct 5th 2022) 5 ORBITS (4E) - Atmospheric characterization of two temperate mini-Neptunes for...

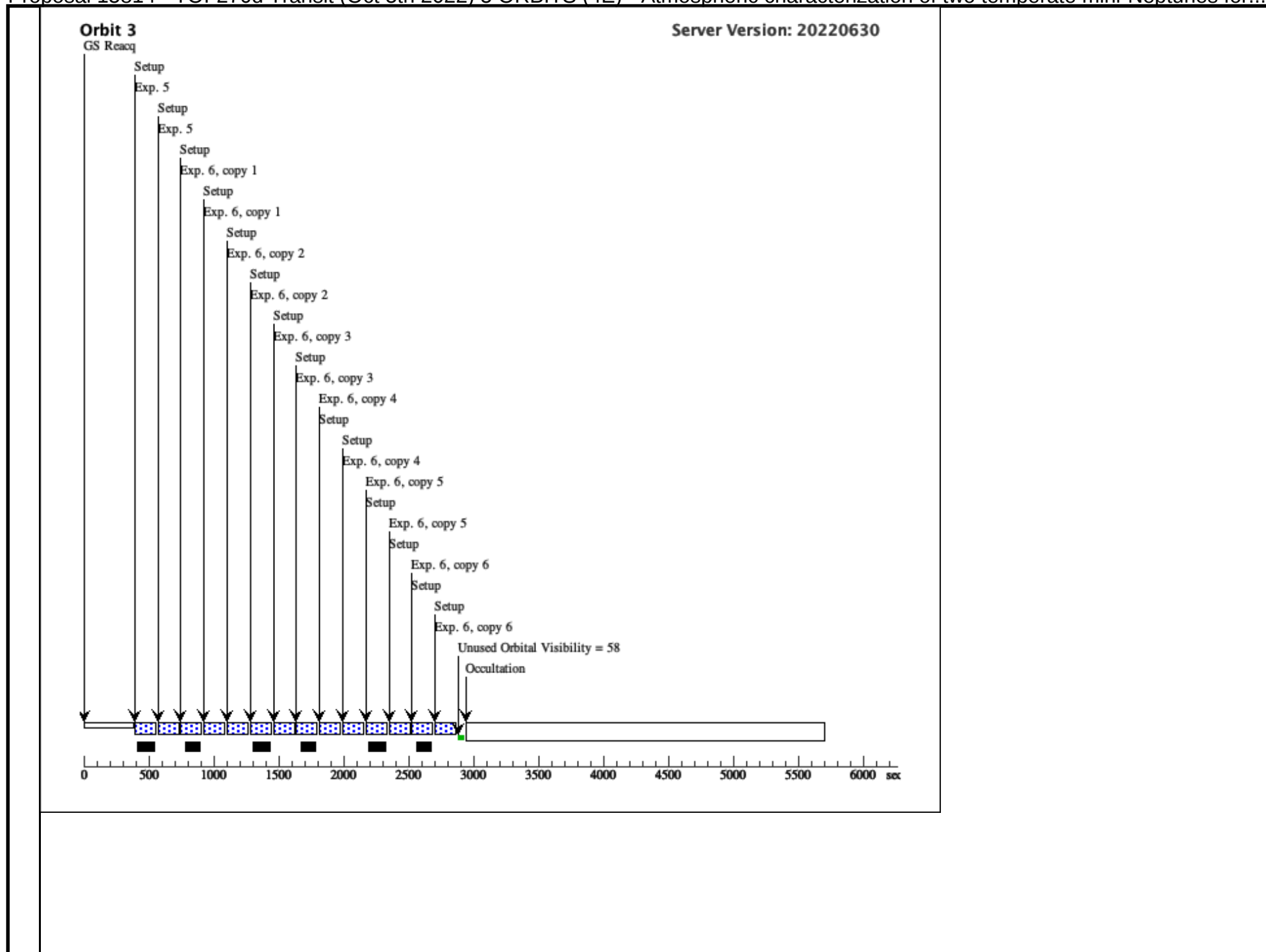
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Oct 5th 2022) 5 O RBITS (4E)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Oct 5th 2022) 5 O RBITS (4E)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	
8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Oct 5th 2022) 5 O RBITS (4E)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	

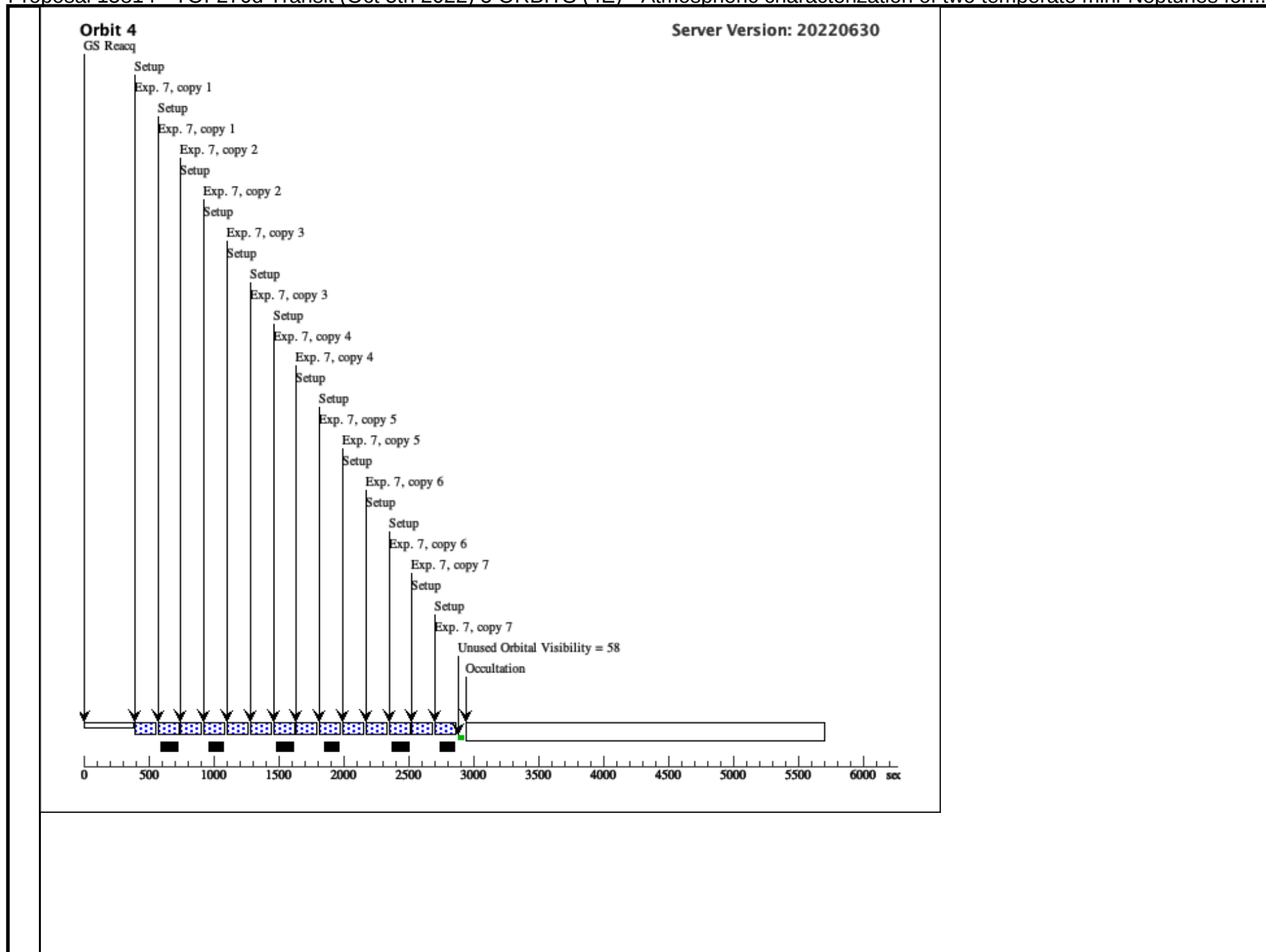
Orbit 1

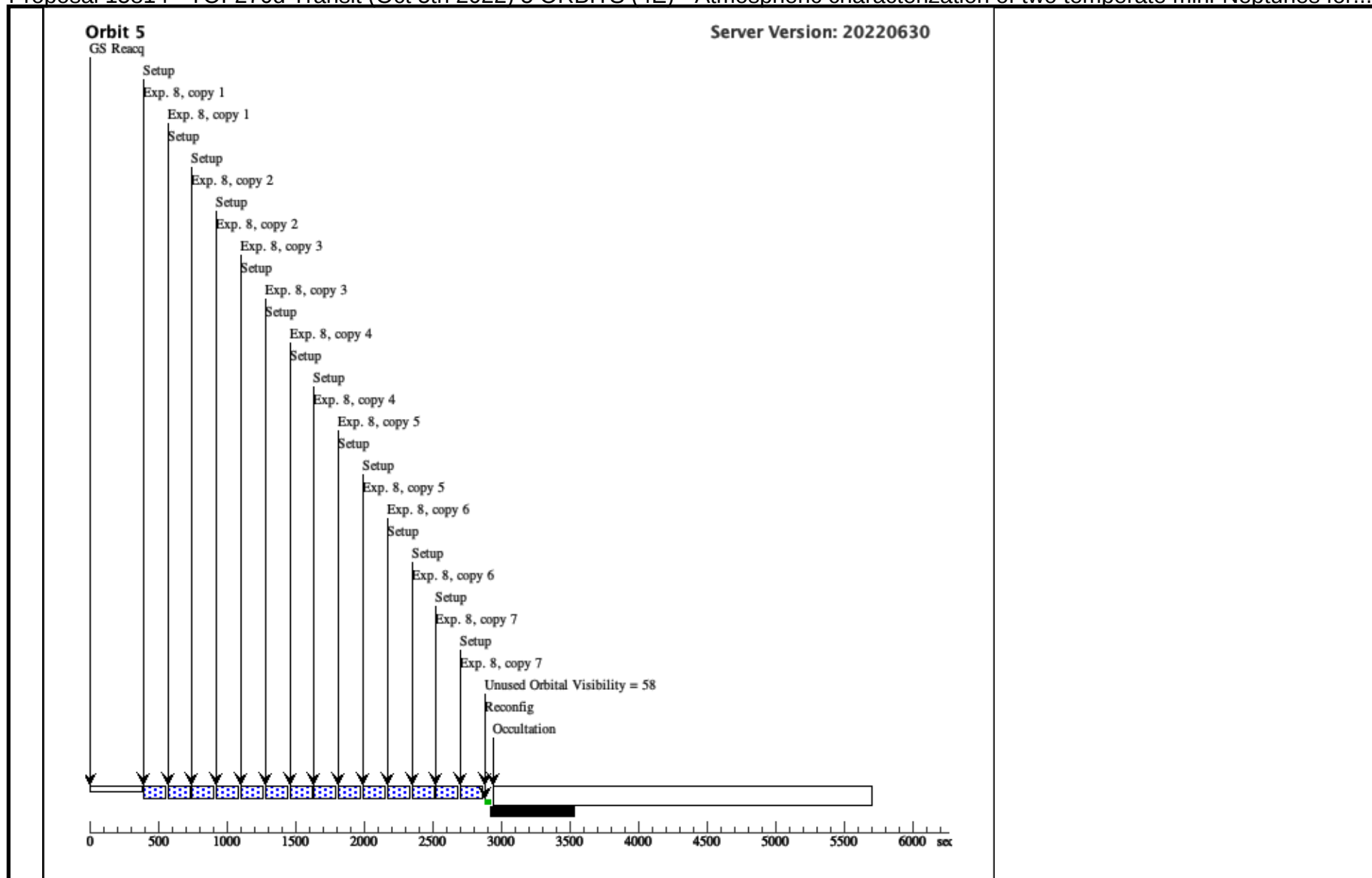
Server Version: 20220630











Proposal 15814 - TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F) - Atmospheric characterization of two temperate mini-Neptunes for...

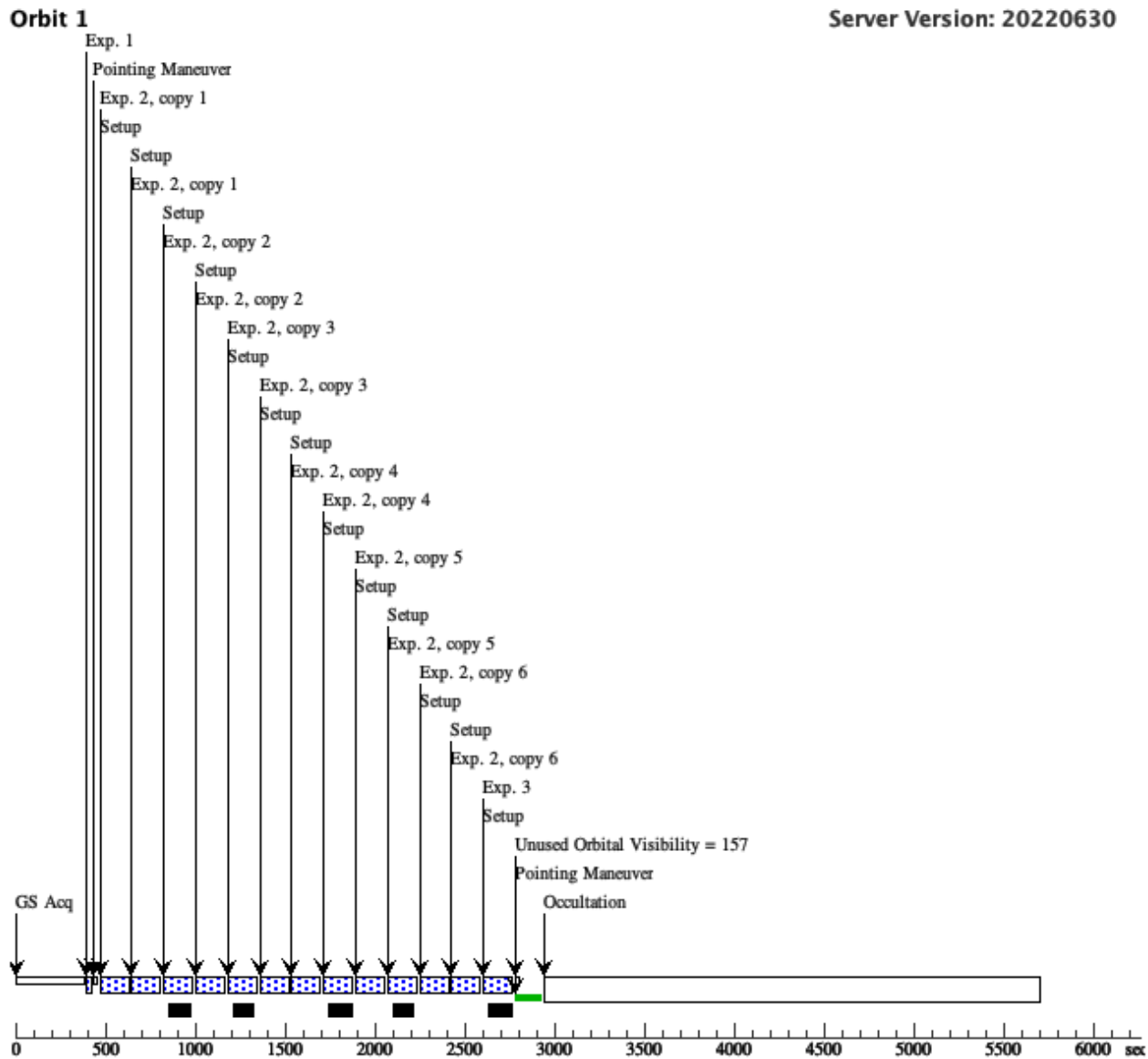
Visit	Proposal 15814, TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F), implementation					Mon Sep 26 21:02:42 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 25-OCT-2022:00:00:00 AND 29-OCT-2022:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459880.421908					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

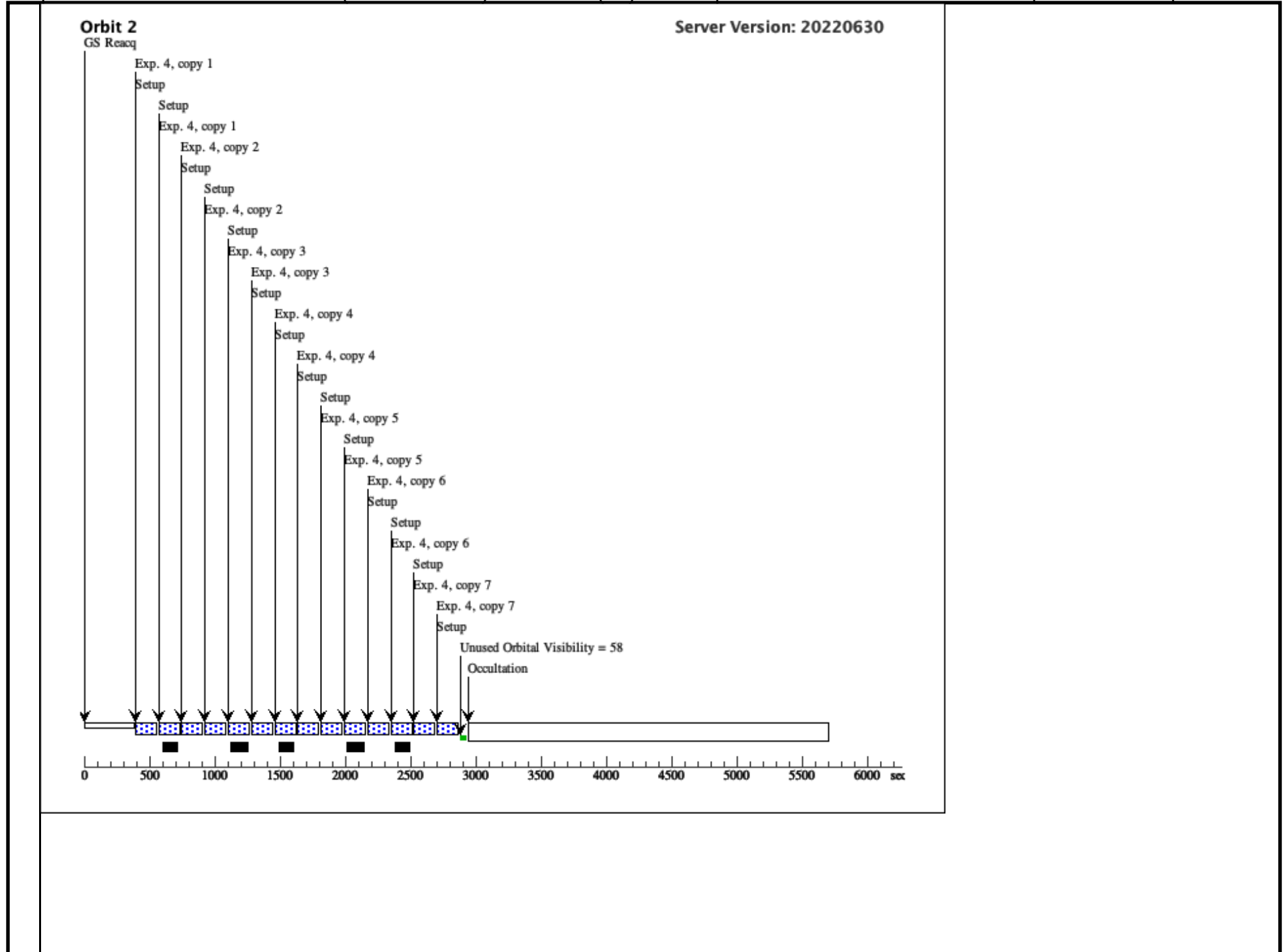
Proposal 15814 - TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F) - Atmospheric characterization of two temperate mini-Neptunes for...

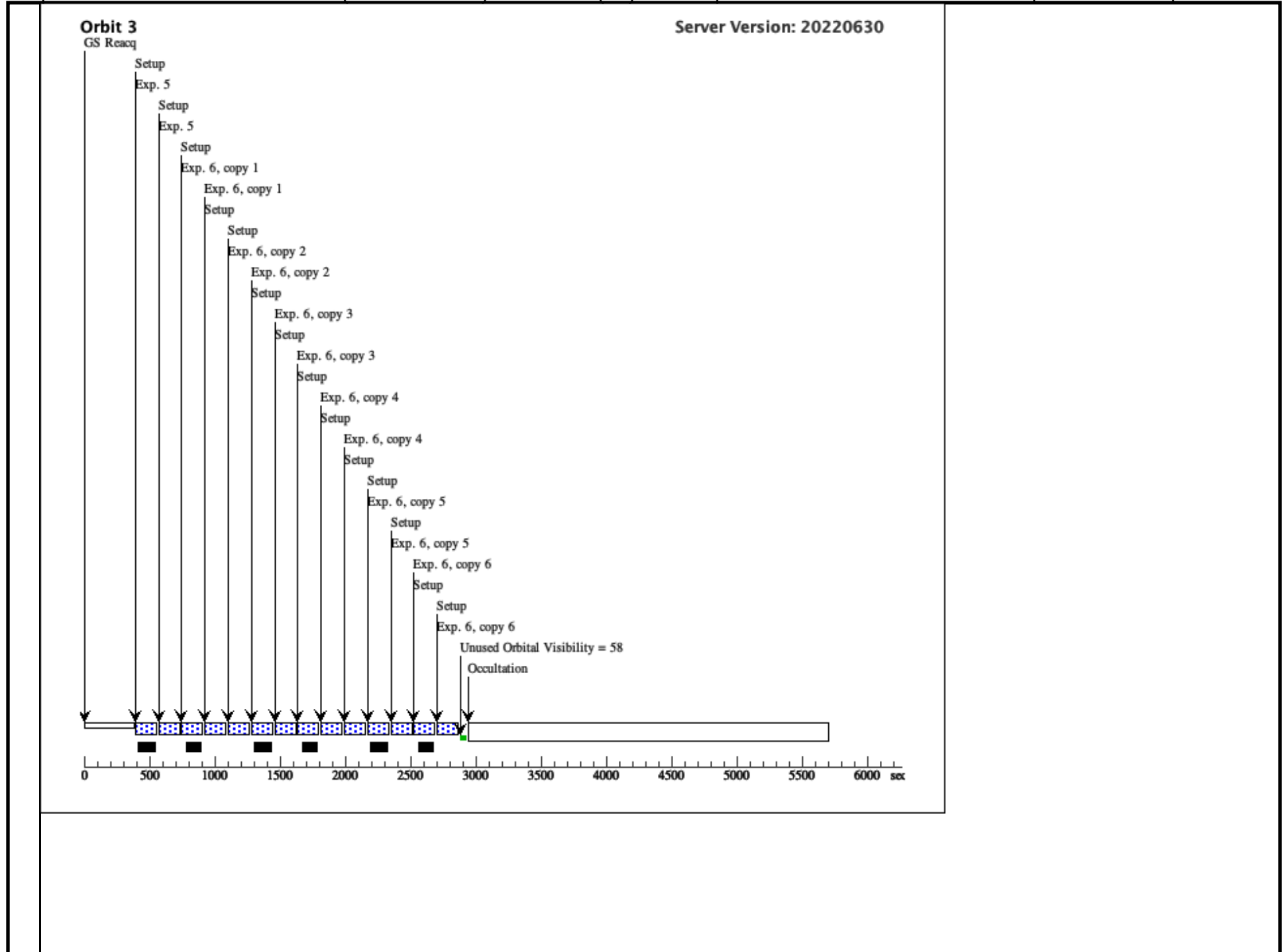
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

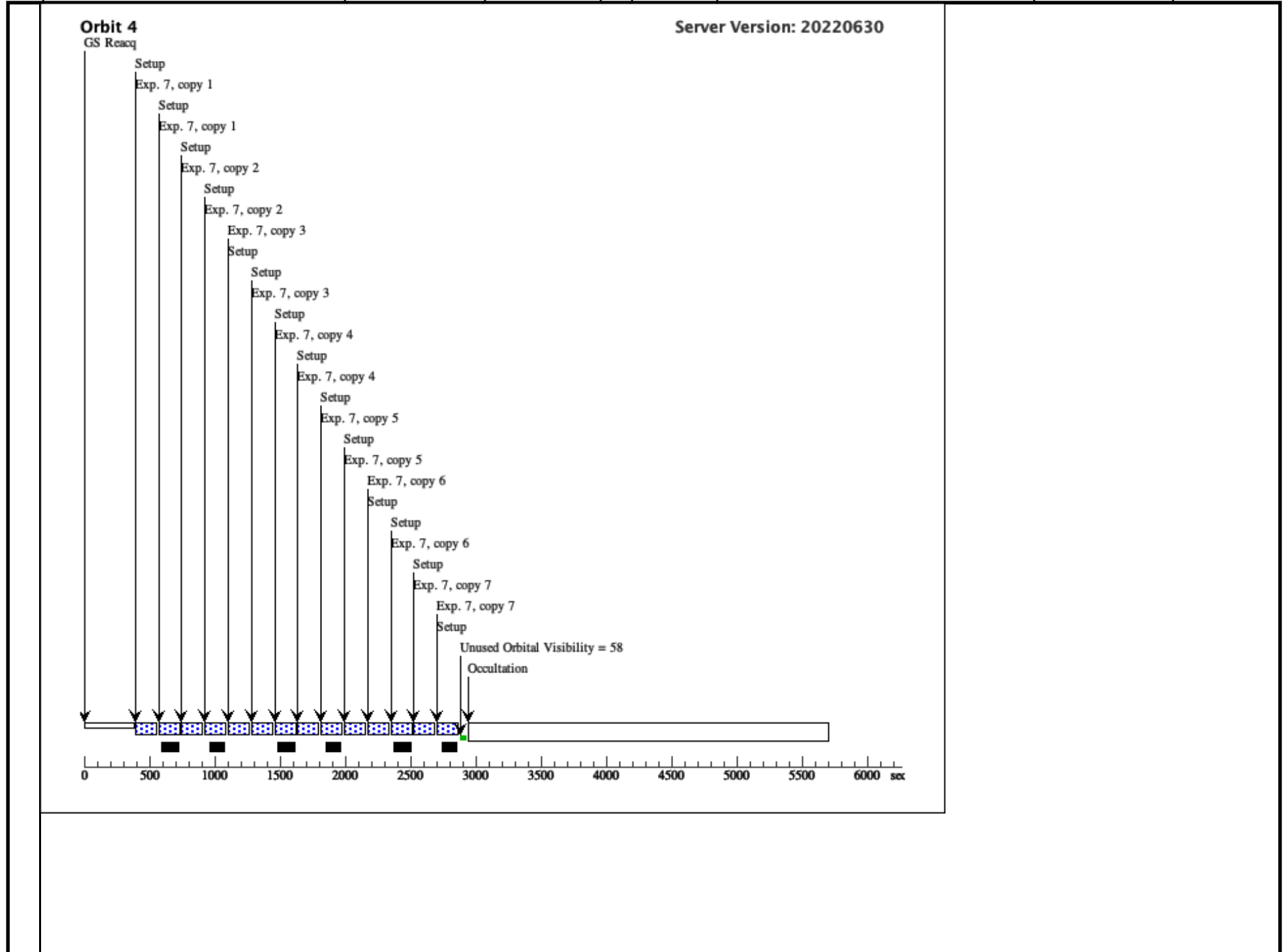
Proposal 15814 - TOI-270d Transit (Oct 27th 2022) 5 ORBITS (4F) - Atmospheric characterization of two temperate mini-Neptunes for...

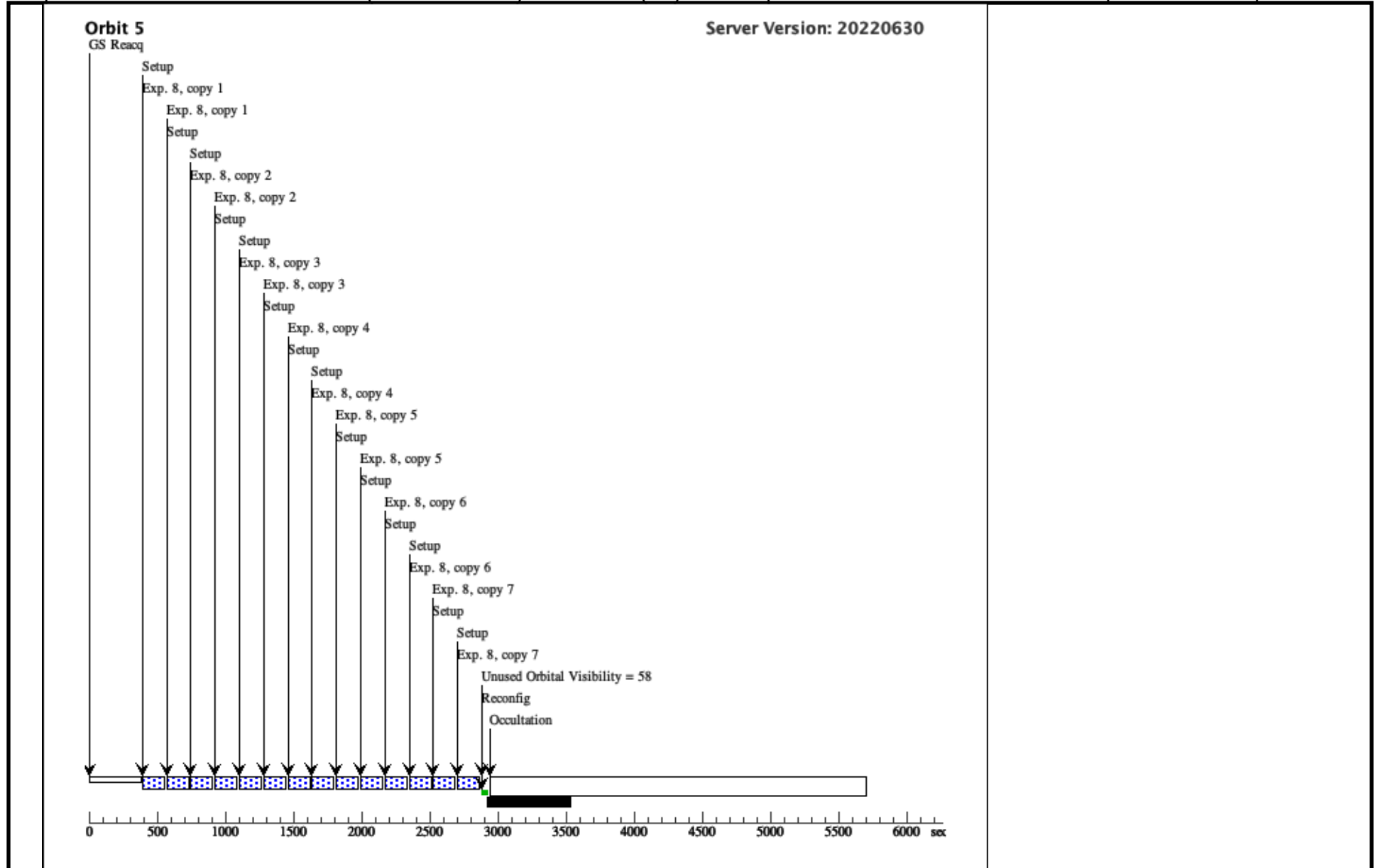
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Oct 27th 2022) 5 ORBITS (4F)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Oct 27th 2022) 5 ORBITS (4F)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	
8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Oct 27th 2022) 5 ORBITS (4F)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	











Proposal 15814 - TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G) - Atmospheric characterization of two temperate mini-Neptunes for...

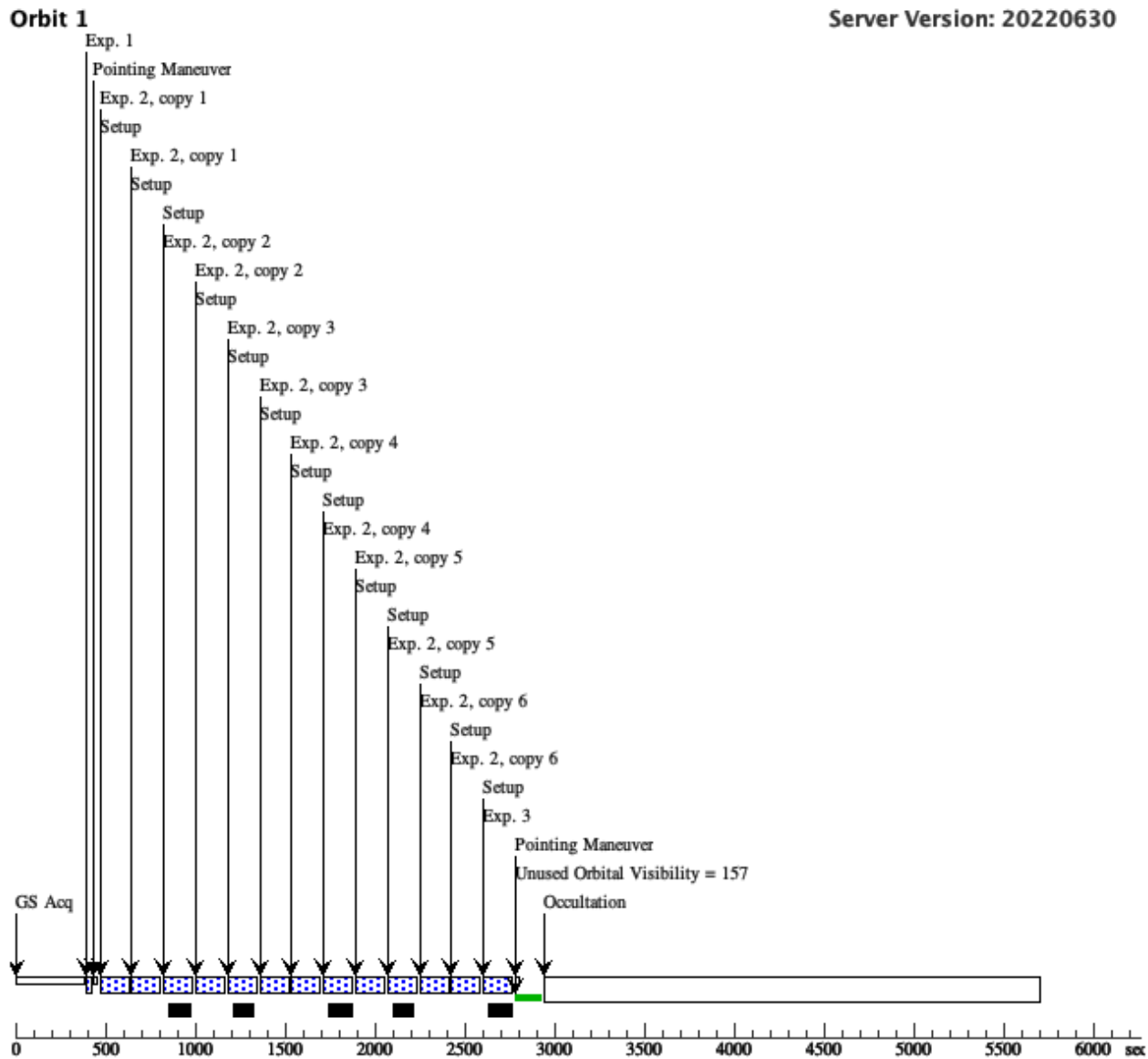
Visit	Proposal 15814, TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G), implementation					Mon Sep 26 21:02:43 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 06-NOV-2022:00:00:00 AND 10-NOV-2022:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459891.801553					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

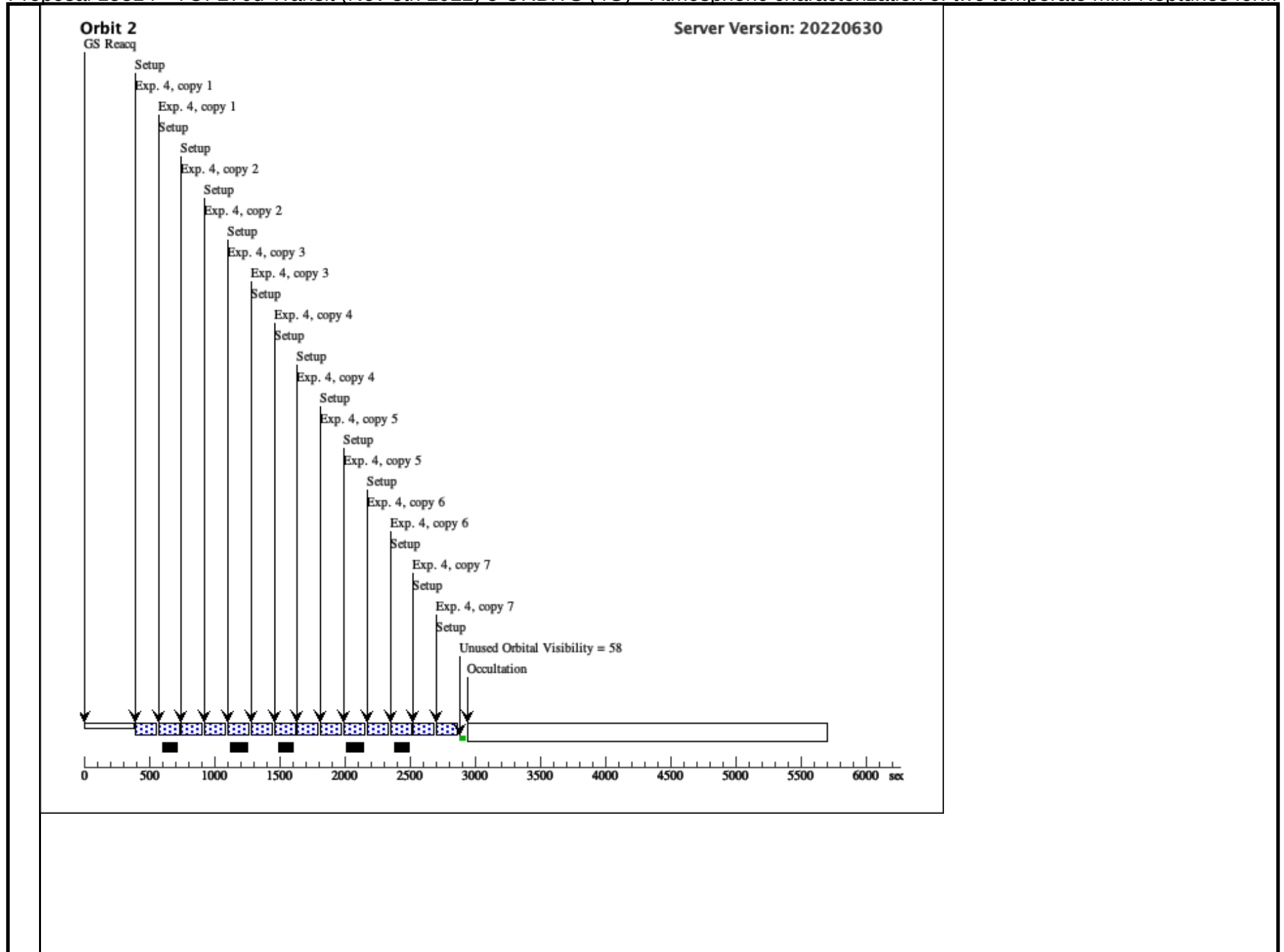
Proposal 15814 - TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G) - Atmospheric characterization of two temperate mini-Neptunes for...

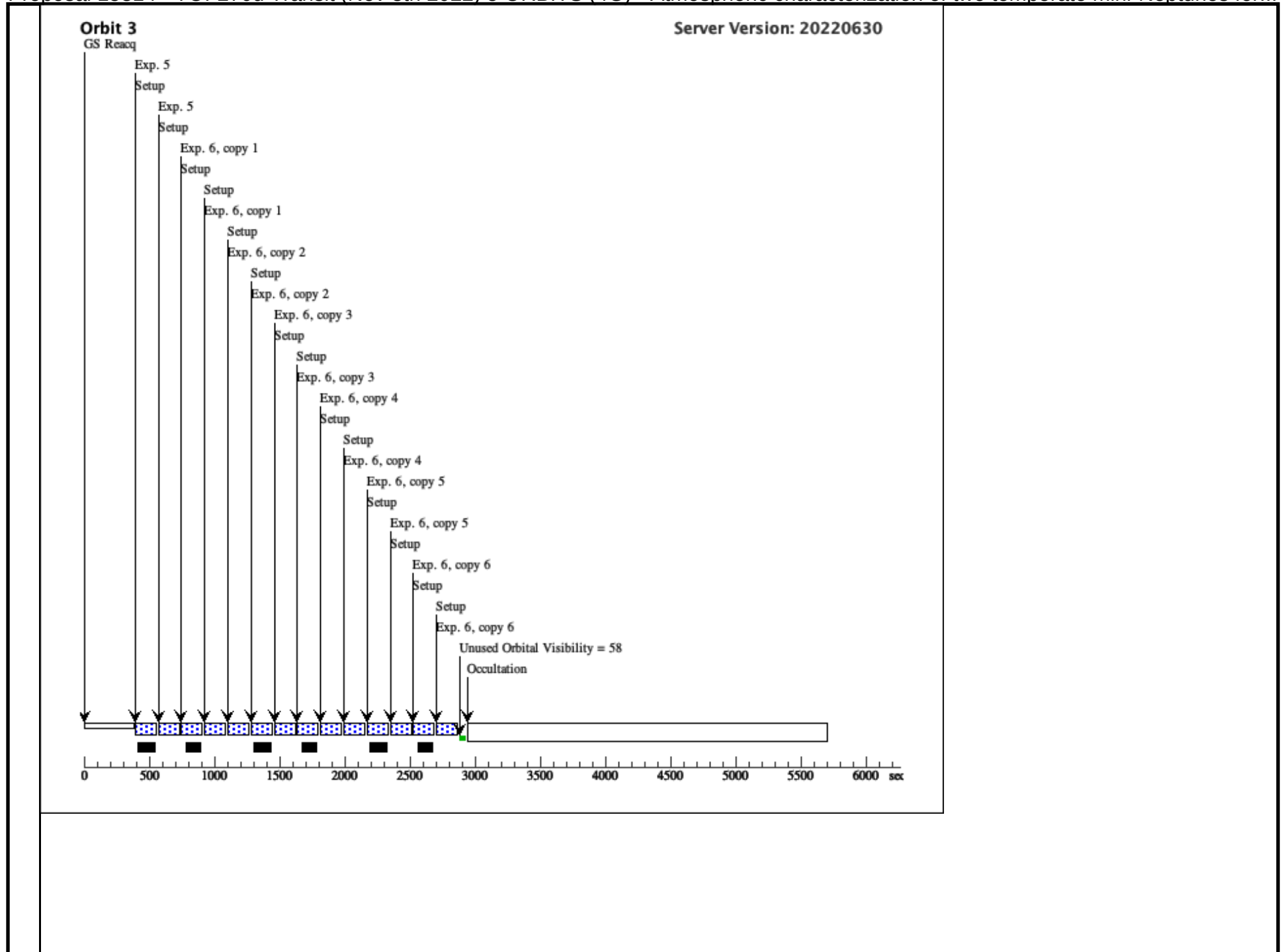
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

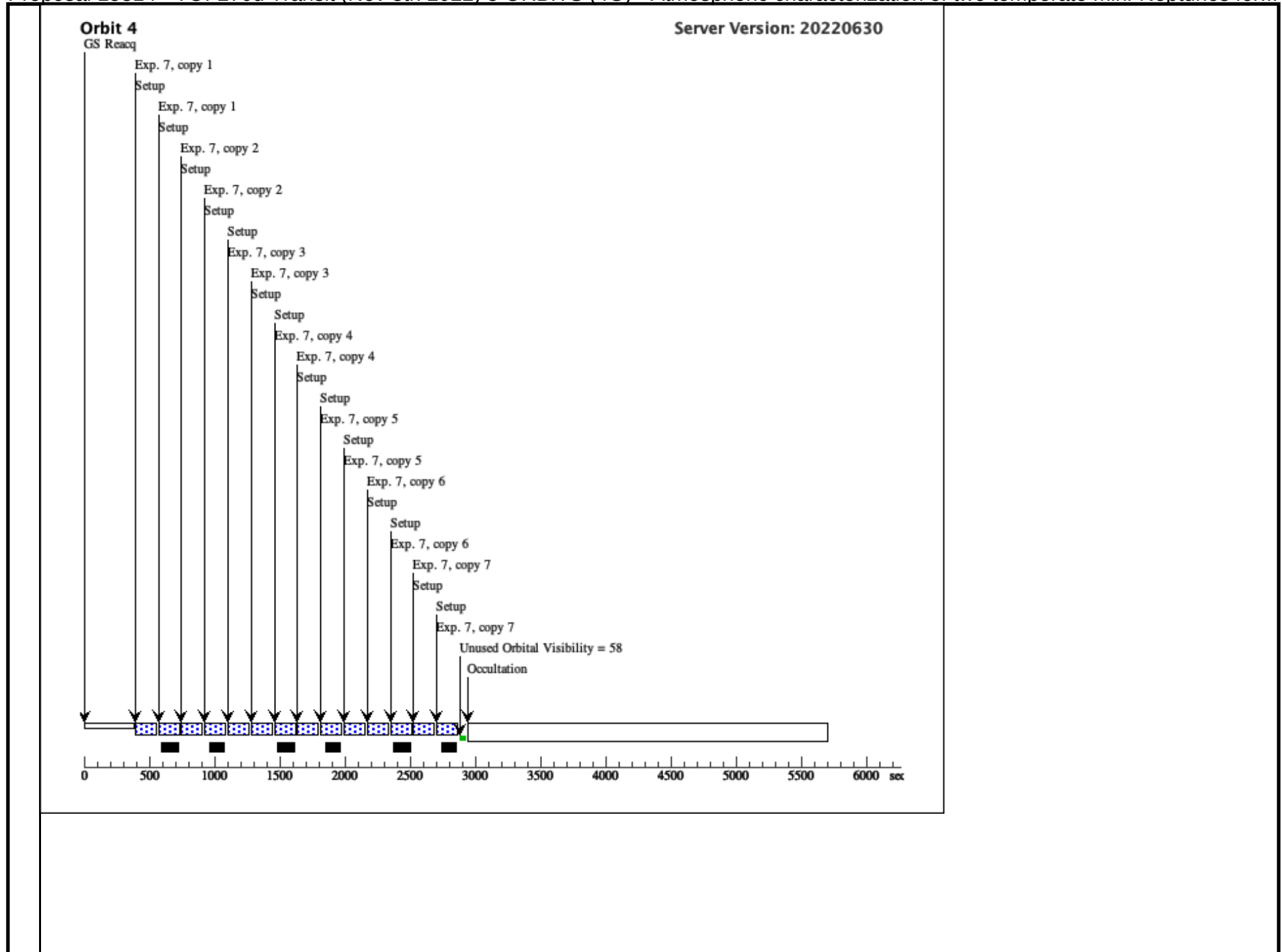
Proposal 15814 - TOI-270d Transit (Nov 8th 2022) 5 ORBITS (4G) - Atmospheric characterization of two temperate mini-Neptunes for...

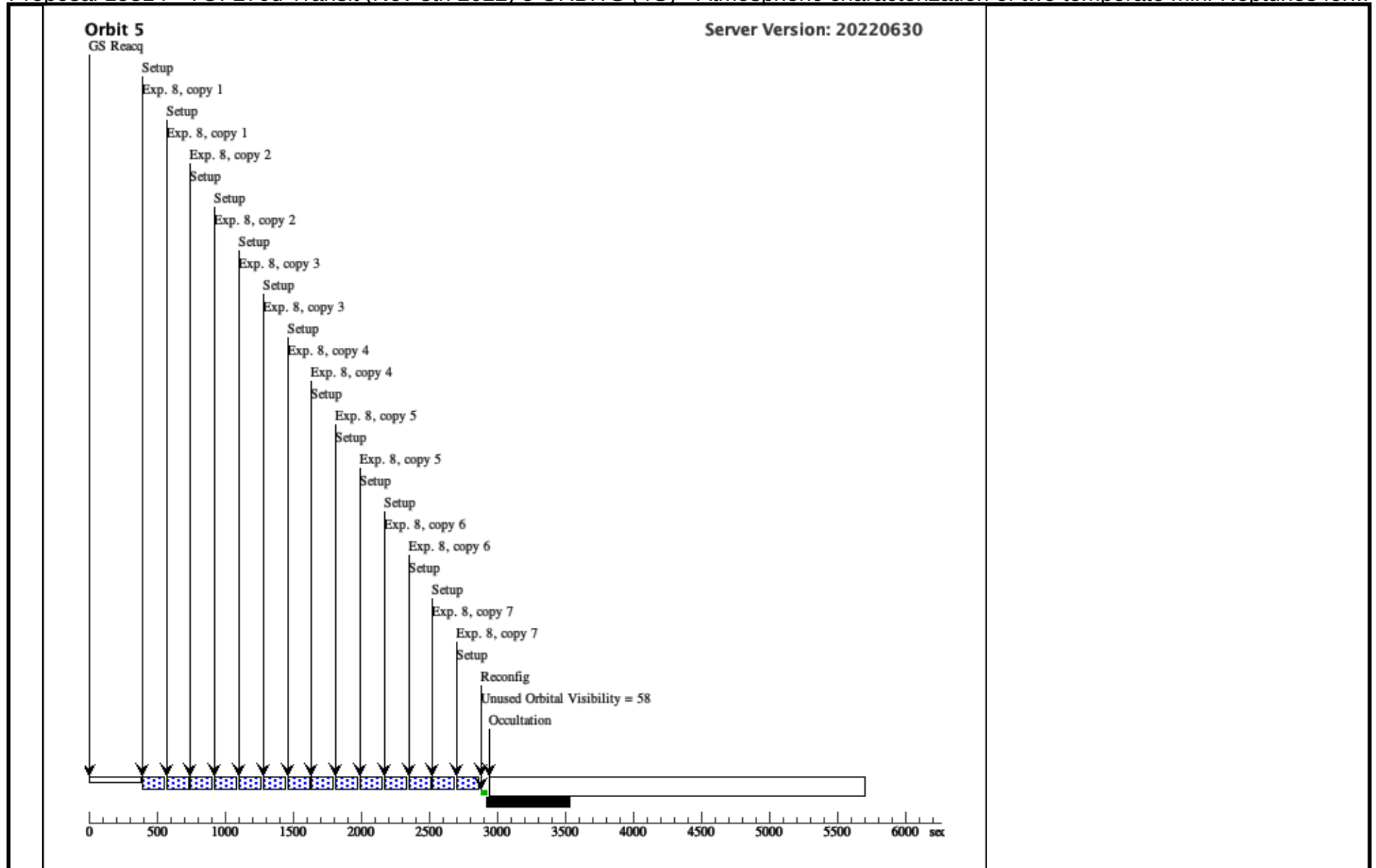
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Nov 8th 2022) 5 O RBITS (4G)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Nov 8th 2022) 5 O RBITS (4G)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	
8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Nov 8th 2022) 5 O RBITS (4G)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	











Proposal 15814 - TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H) - Atmospheric characterization of two temperate mini-Neptunes fo...

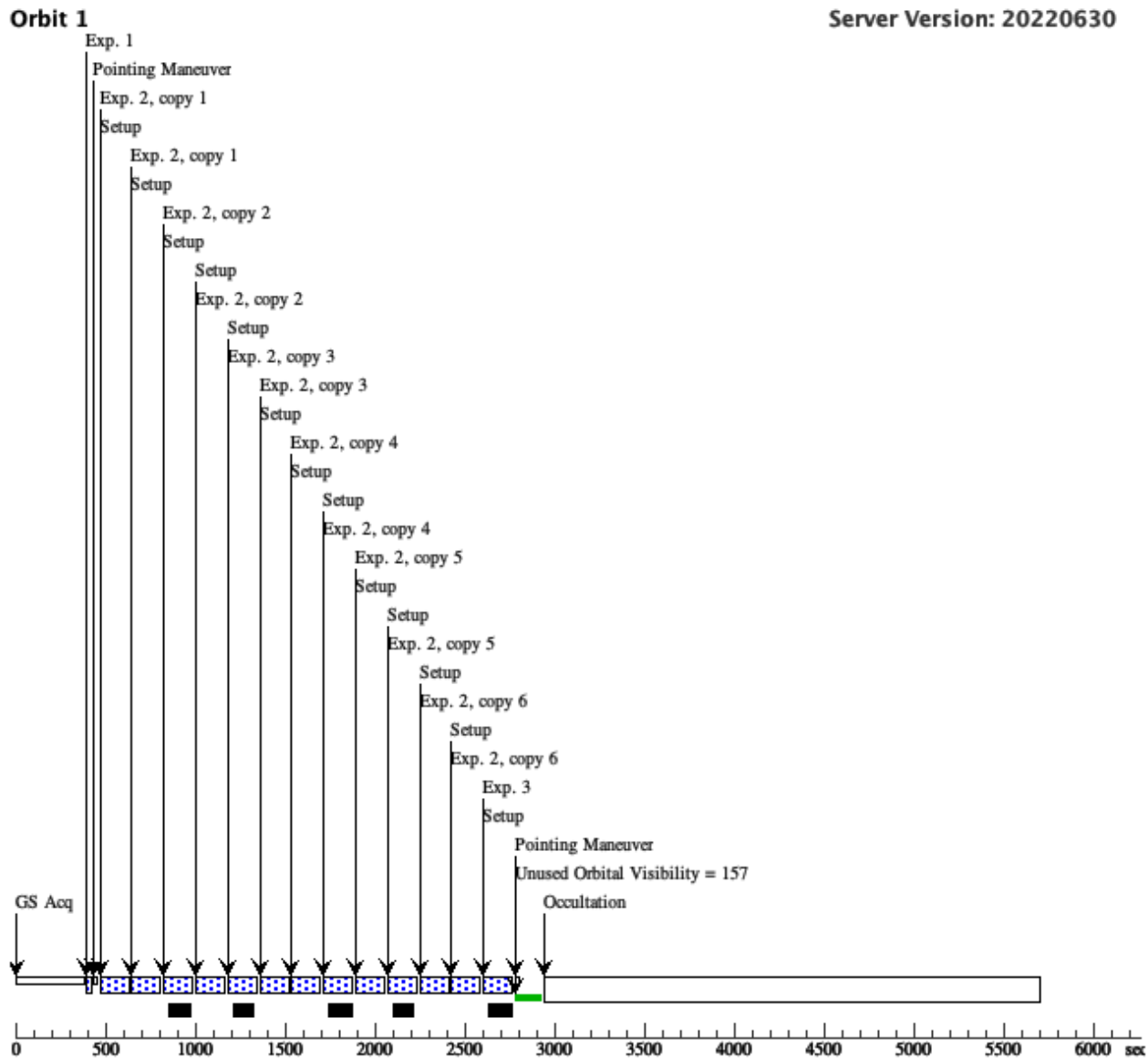
Visit	Proposal 15814, TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H), implementation					Mon Sep 26 21:02:43 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 17-NOV-2022:00:00:00 AND 21-NOV-2022:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459903.181078					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

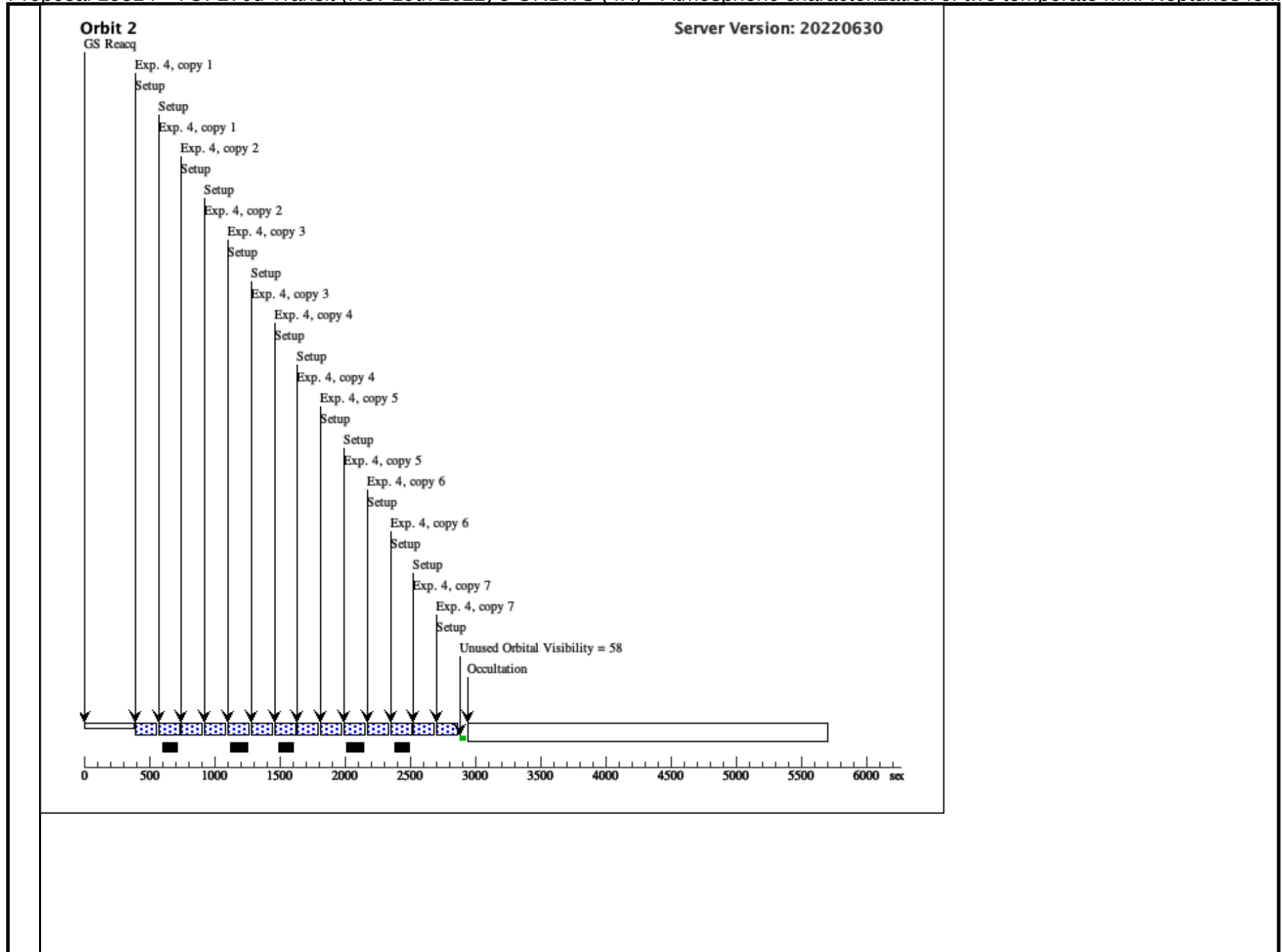
Proposal 15814 - TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H) - Atmospheric characterization of two temperate mini-Neptunes fo...

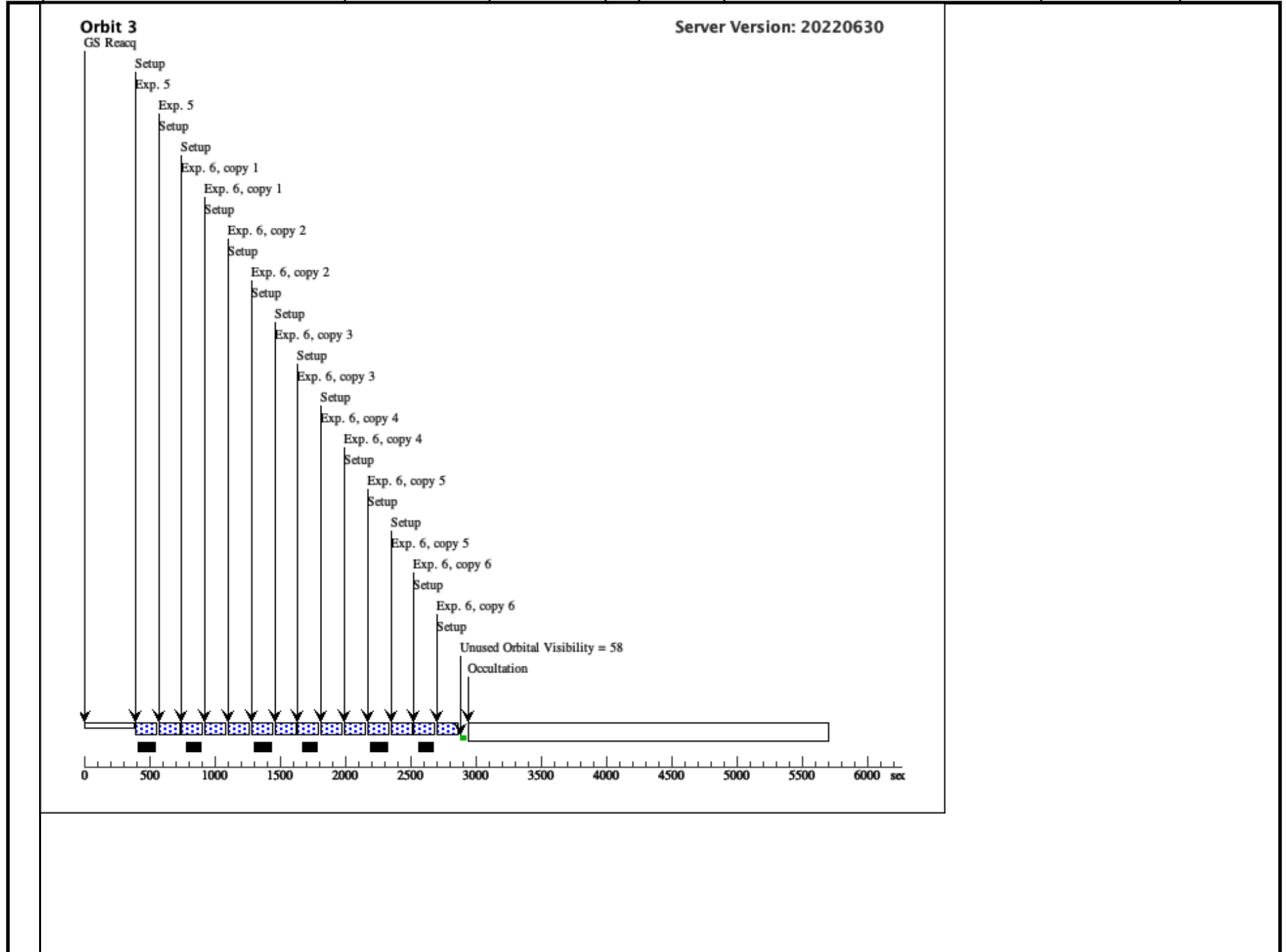
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

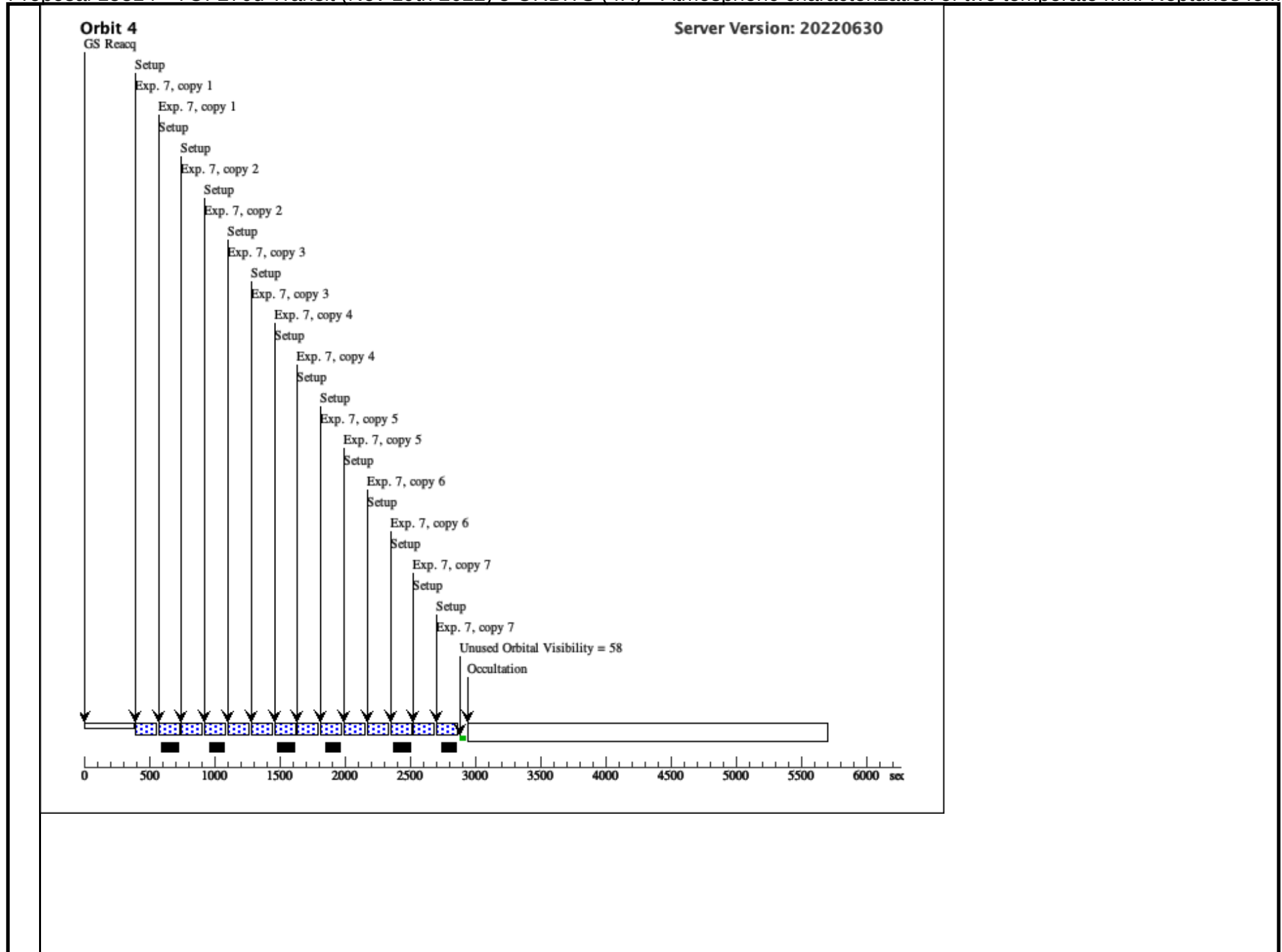
Proposal 15814 - TOI-270d Transit (Nov 19th 2022) 5 ORBITS (4H) - Atmospheric characterization of two temperate mini-Neptunes fo...

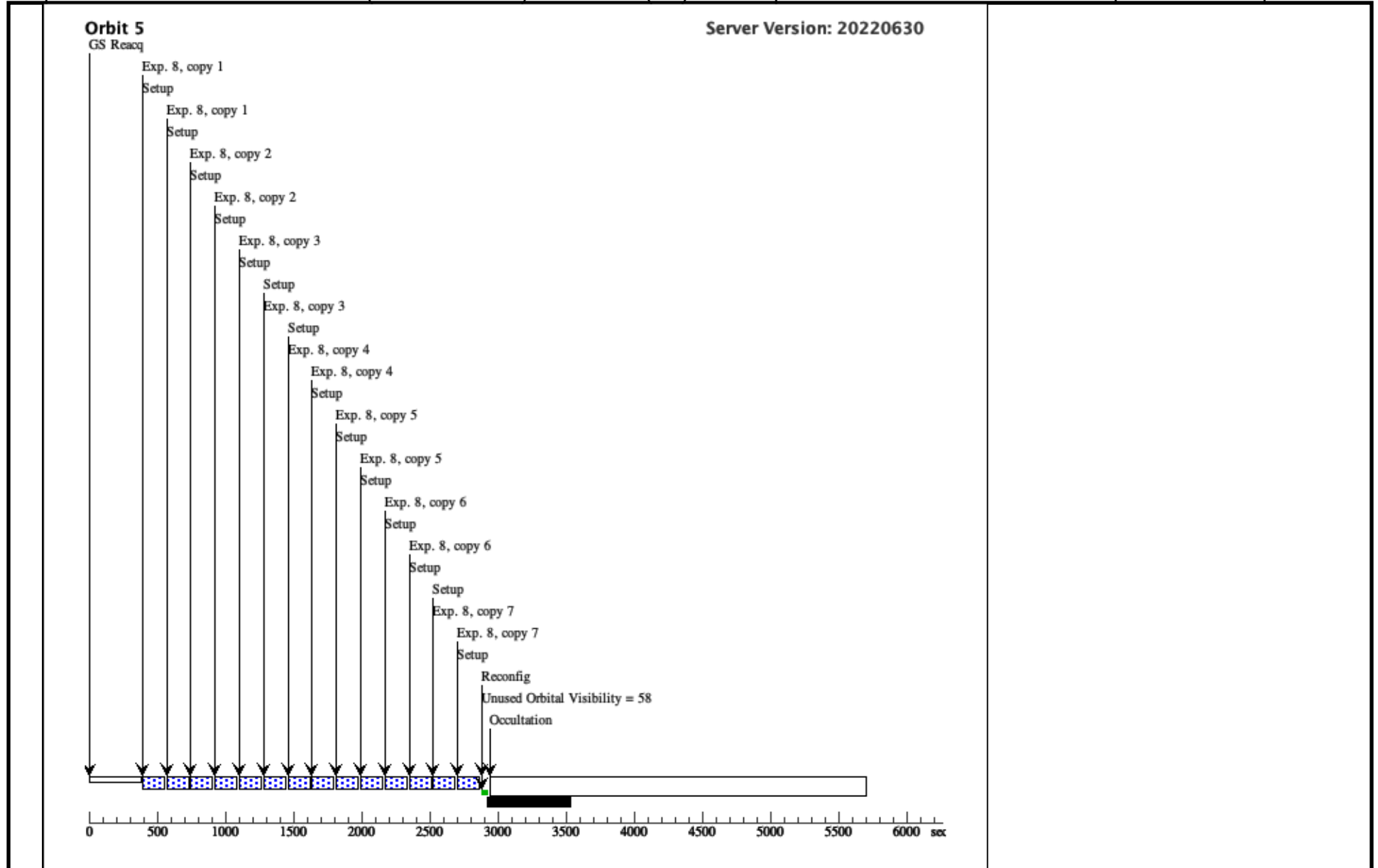
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Nov 19th 2022) 5 ORBITS (4H)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Nov 19th 2022) 5 ORBITS (4H)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	
8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Nov 19th 2022) 5 ORBITS (4H)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	











Proposal 15814 - TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K) - Atmospheric characterization of two temperate mini-Neptunes for...

Visit	Proposal 15814, TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K), implementation					Mon Sep 26 21:02:43 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 29-NOV-2022:00:00:00 AND 03-DEC-2022:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459914.560558					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

Proposal 15814 - TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K) - Atmospheric characterization of two temperate mini-Neptunes for...

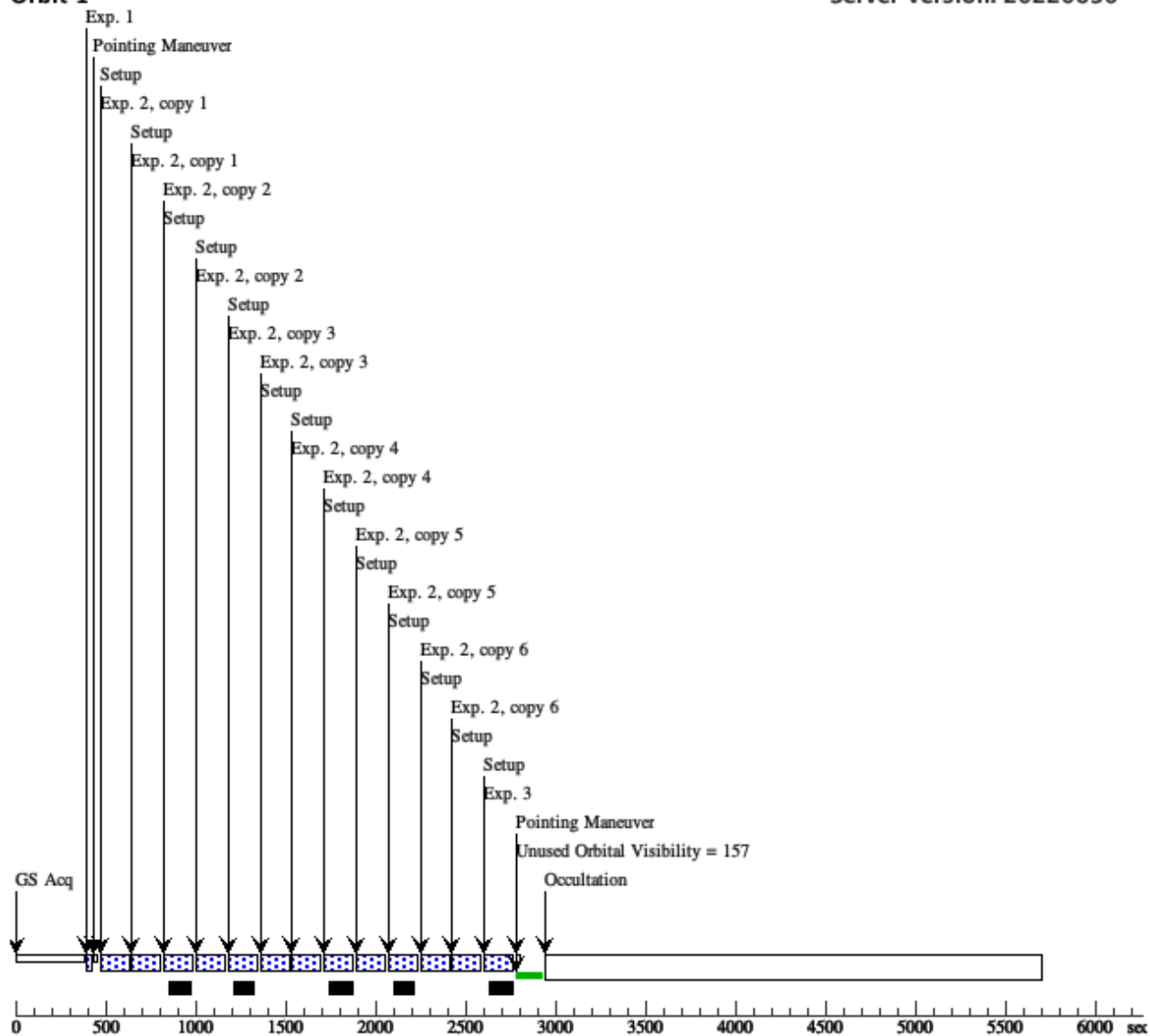
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

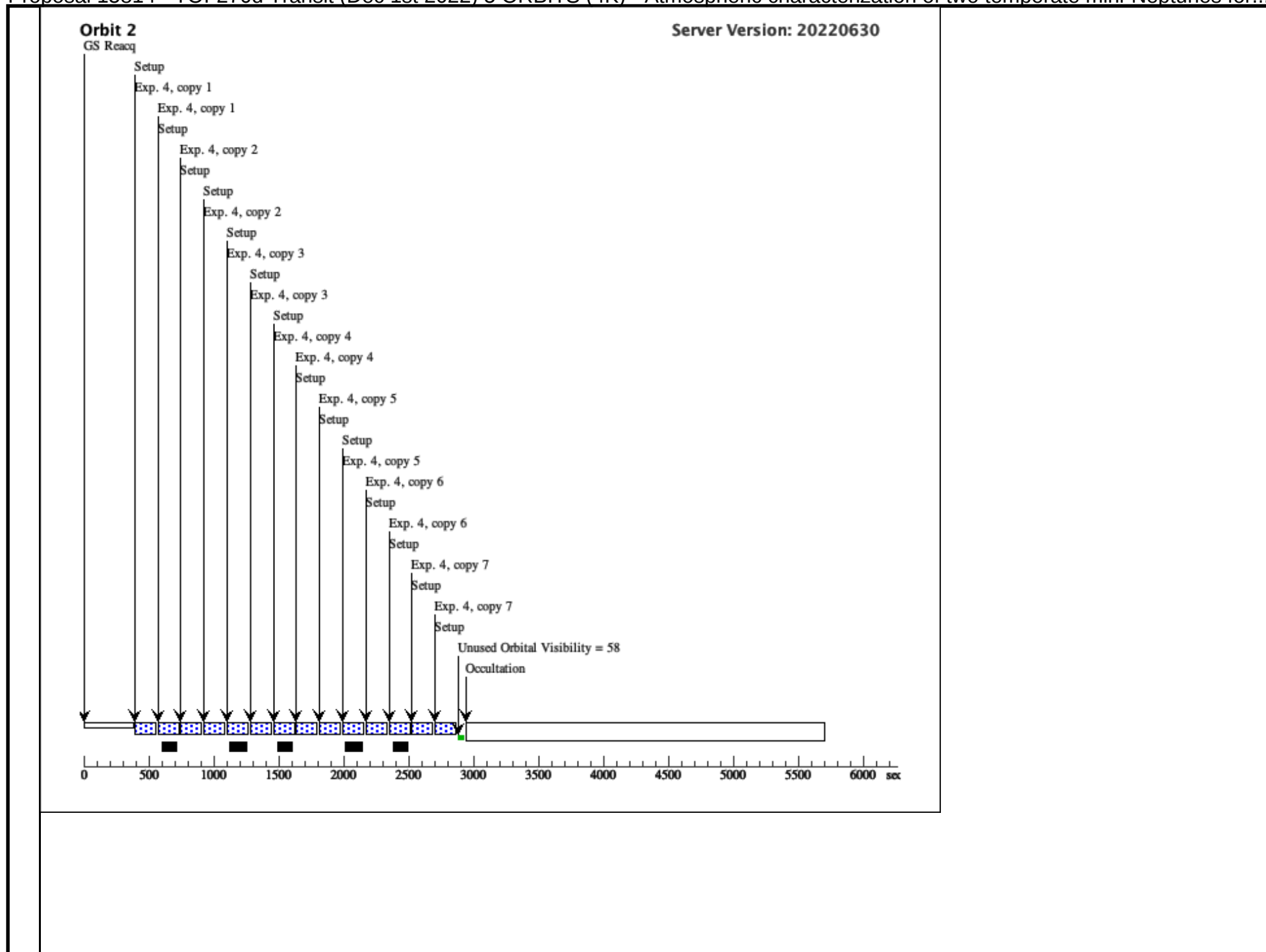
Proposal 15814 - TOI-270d Transit (Dec 1st 2022) 5 ORBITS (4K) - Atmospheric characterization of two temperate mini-Neptunes for...

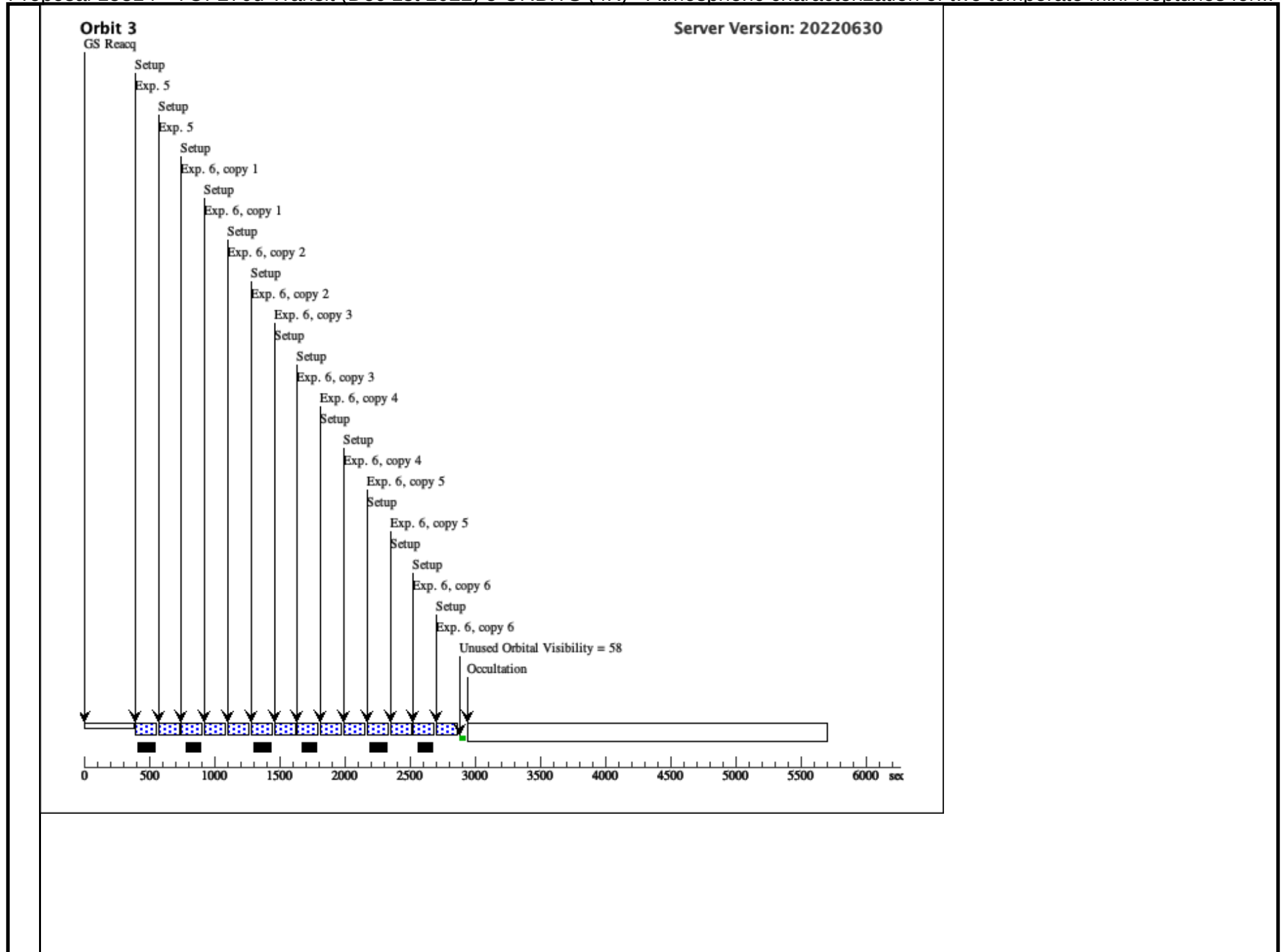
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Dec 1st 2022) 5 O RBITS (4K)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Dec 1st 2022) 5 O RBITS (4K)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
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8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Dec 1st 2022) 5 O RBITS (4K)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
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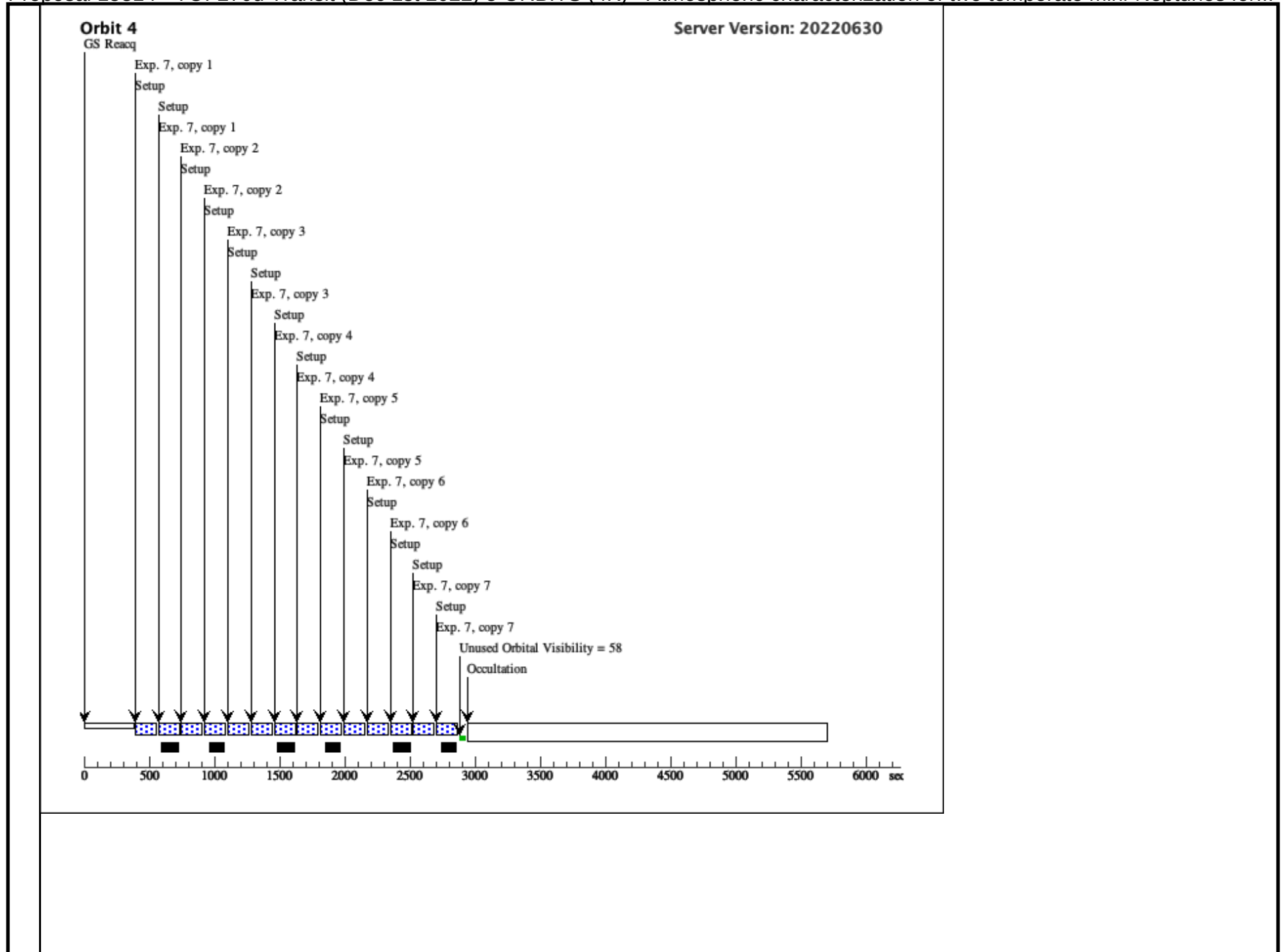
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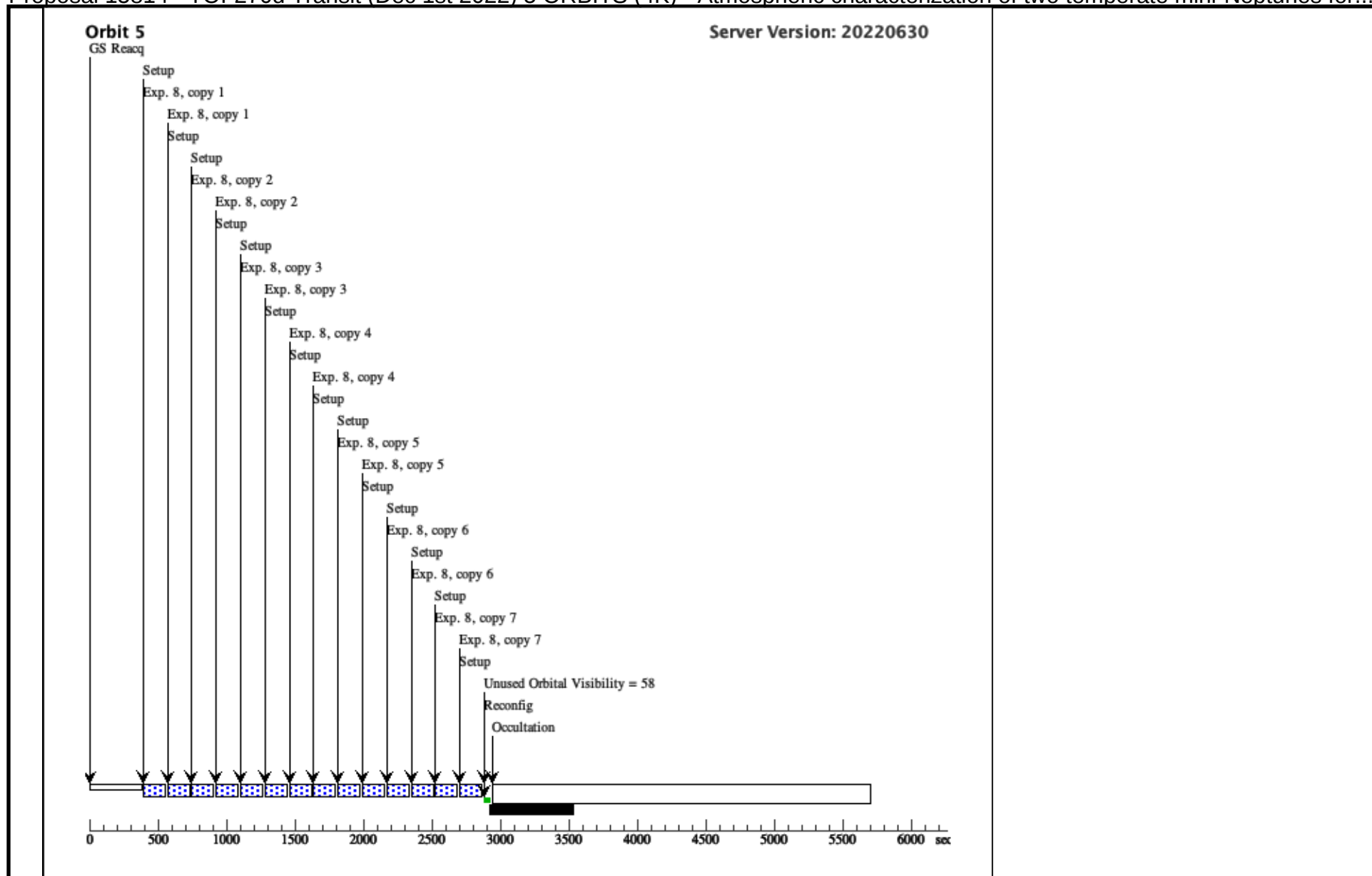
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Proposal 15814 - TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L) - Atmospheric characterization of two temperate mini-Neptunes fo...

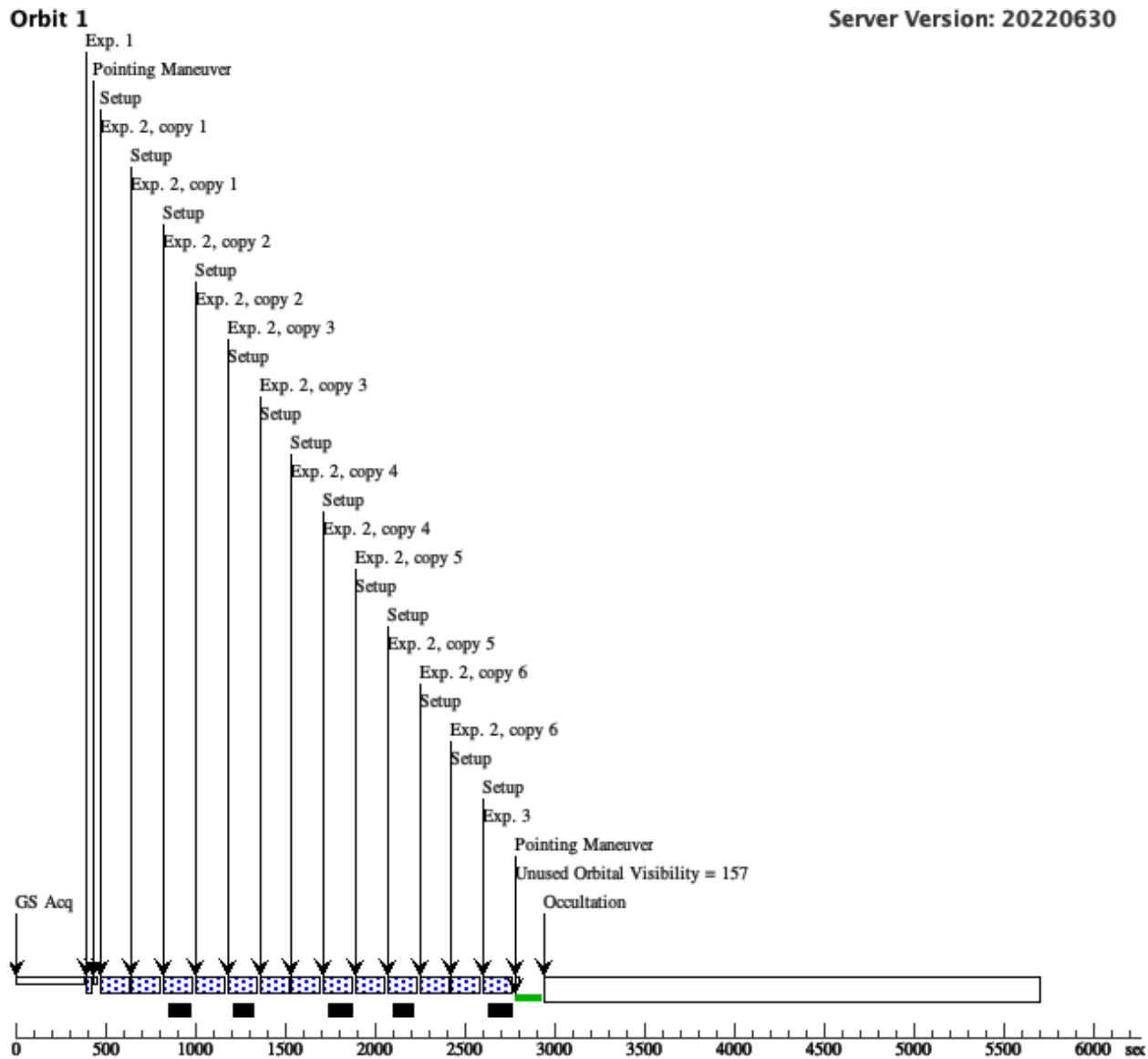
Visit	Proposal 15814, TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L), implementation					Mon Sep 26 21:02:43 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 21-DEC-2022:00:00:00 AND 25-DEC-2022:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459937.319466					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

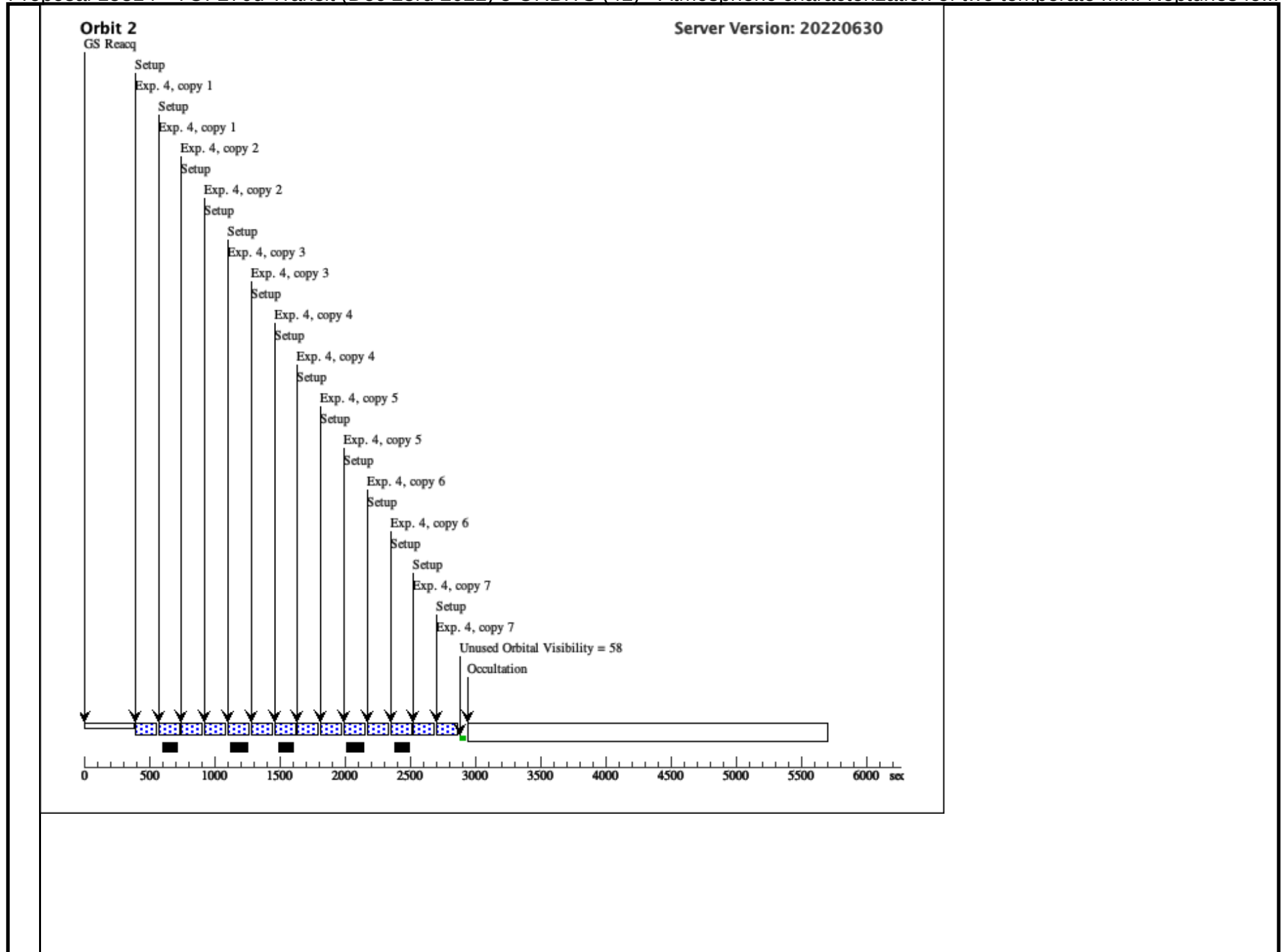
Proposal 15814 - TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L) - Atmospheric characterization of two temperate mini-Neptunes fo...

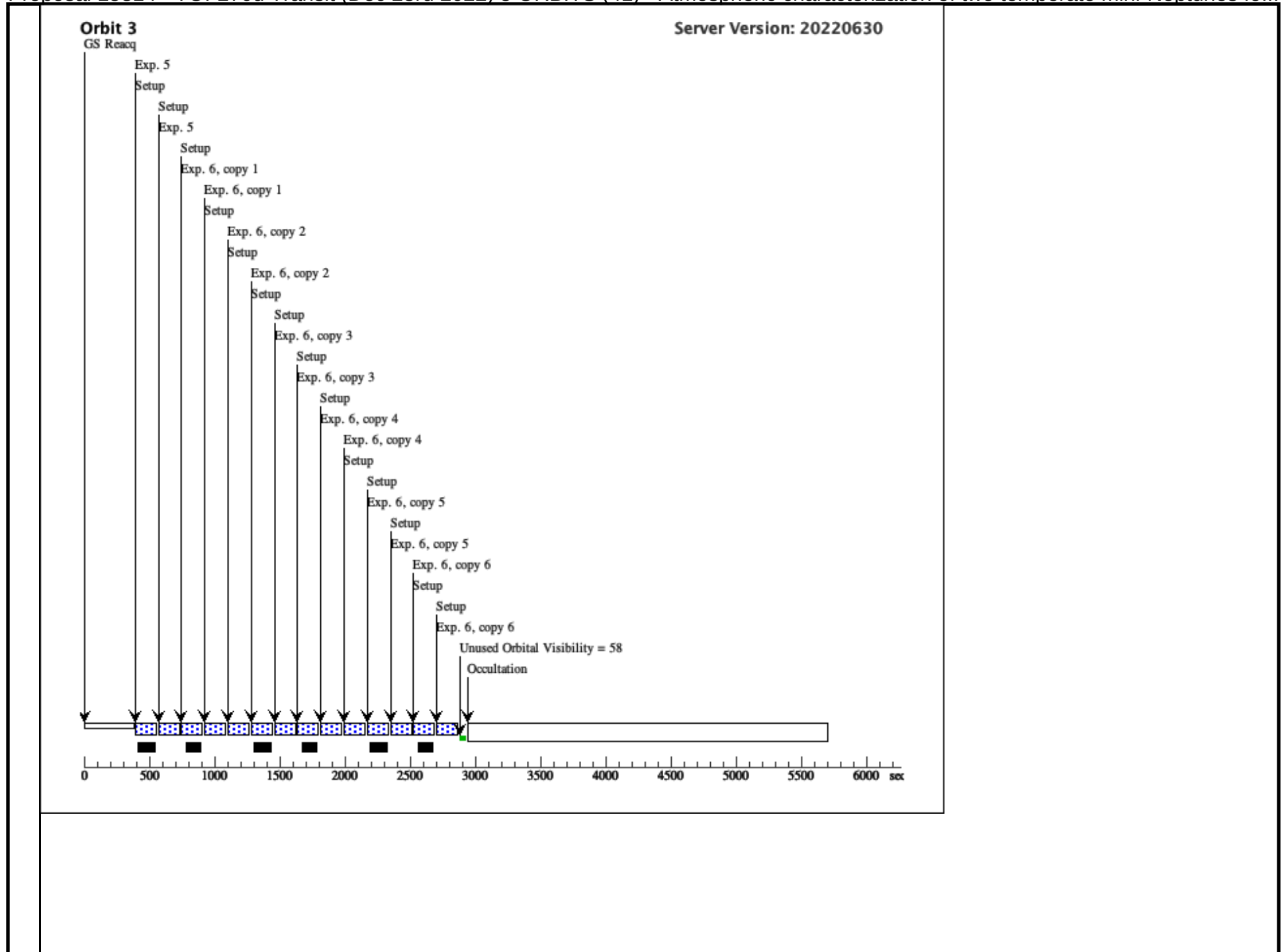
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

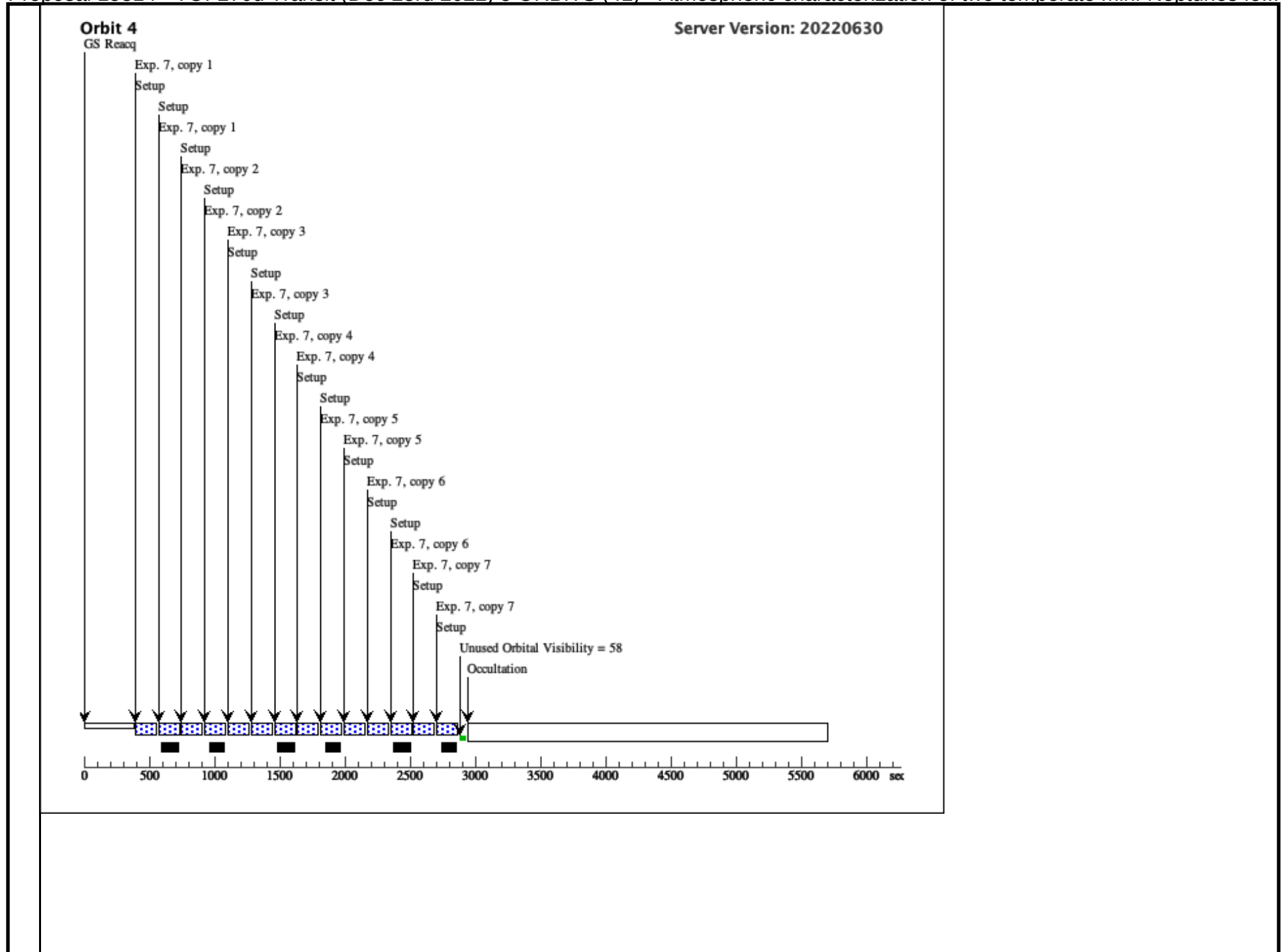
Proposal 15814 - TOI-270d Transit (Dec 23rd 2022) 5 ORBITS (4L) - Atmospheric characterization of two temperate mini-Neptunes fo...

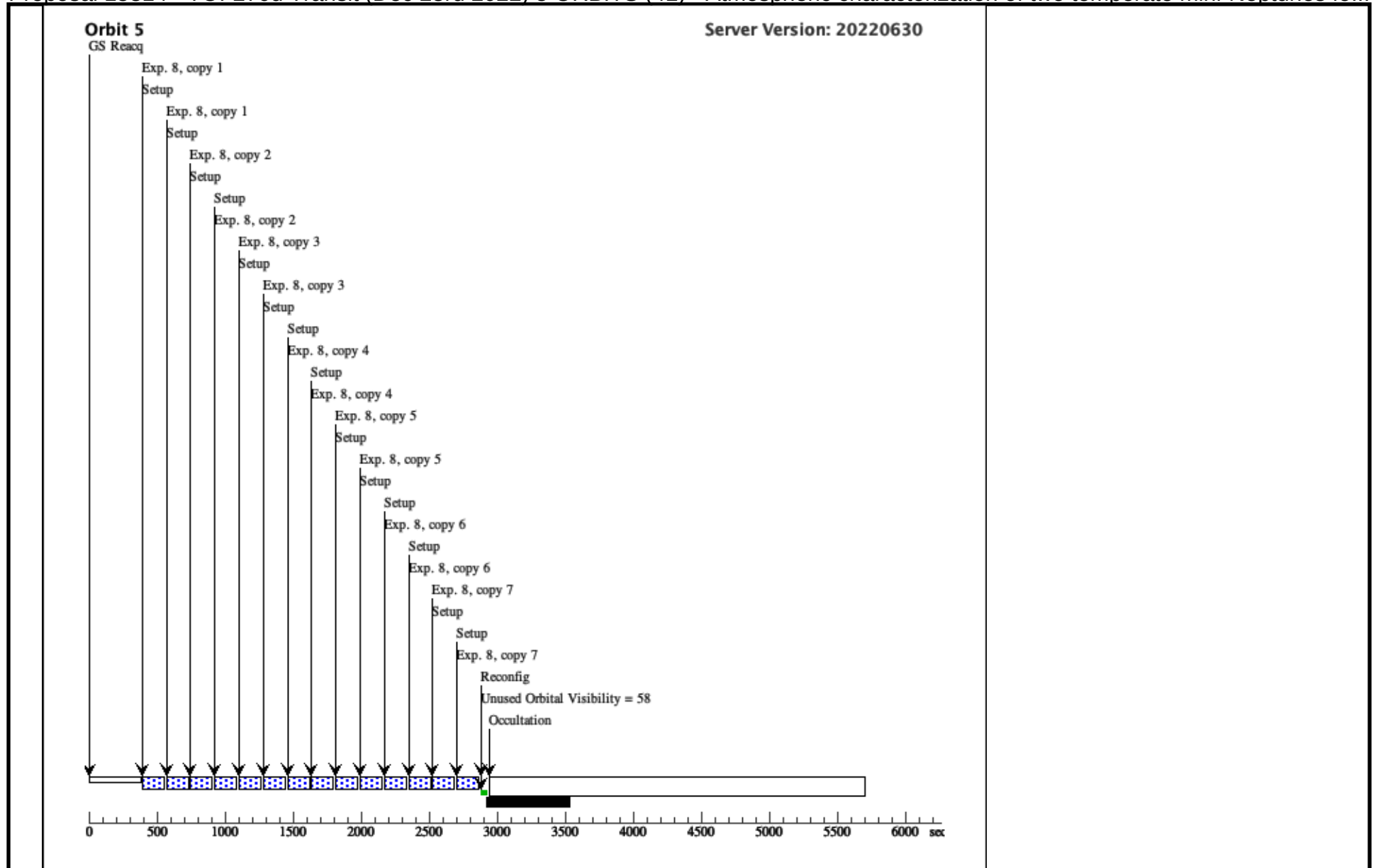
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Dec 23rd 2022) 5 ORBITS (4L)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Dec 23rd 2022) 5 ORBITS (4L)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
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8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Dec 23rd 2022) 5 ORBITS (4L)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	











Proposal 15814 - TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M) - Atmospheric characterization of two temperate mini-Neptunes for...

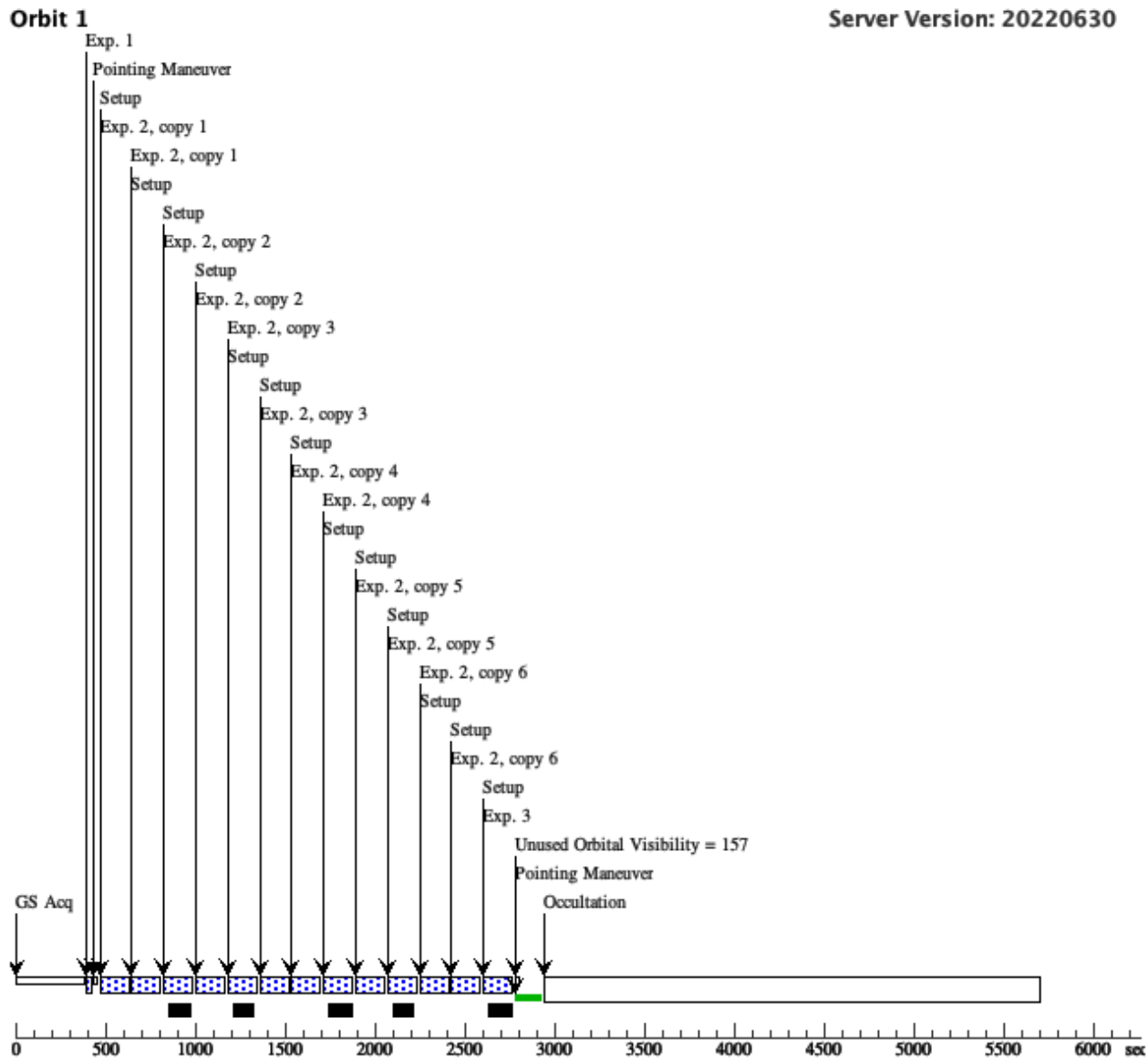
Visit	Proposal 15814, TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M), implementation					Mon Sep 26 21:02:43 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 02-JAN-2023:00:00:00 AND 06-JAN-2023:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459948.699017					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

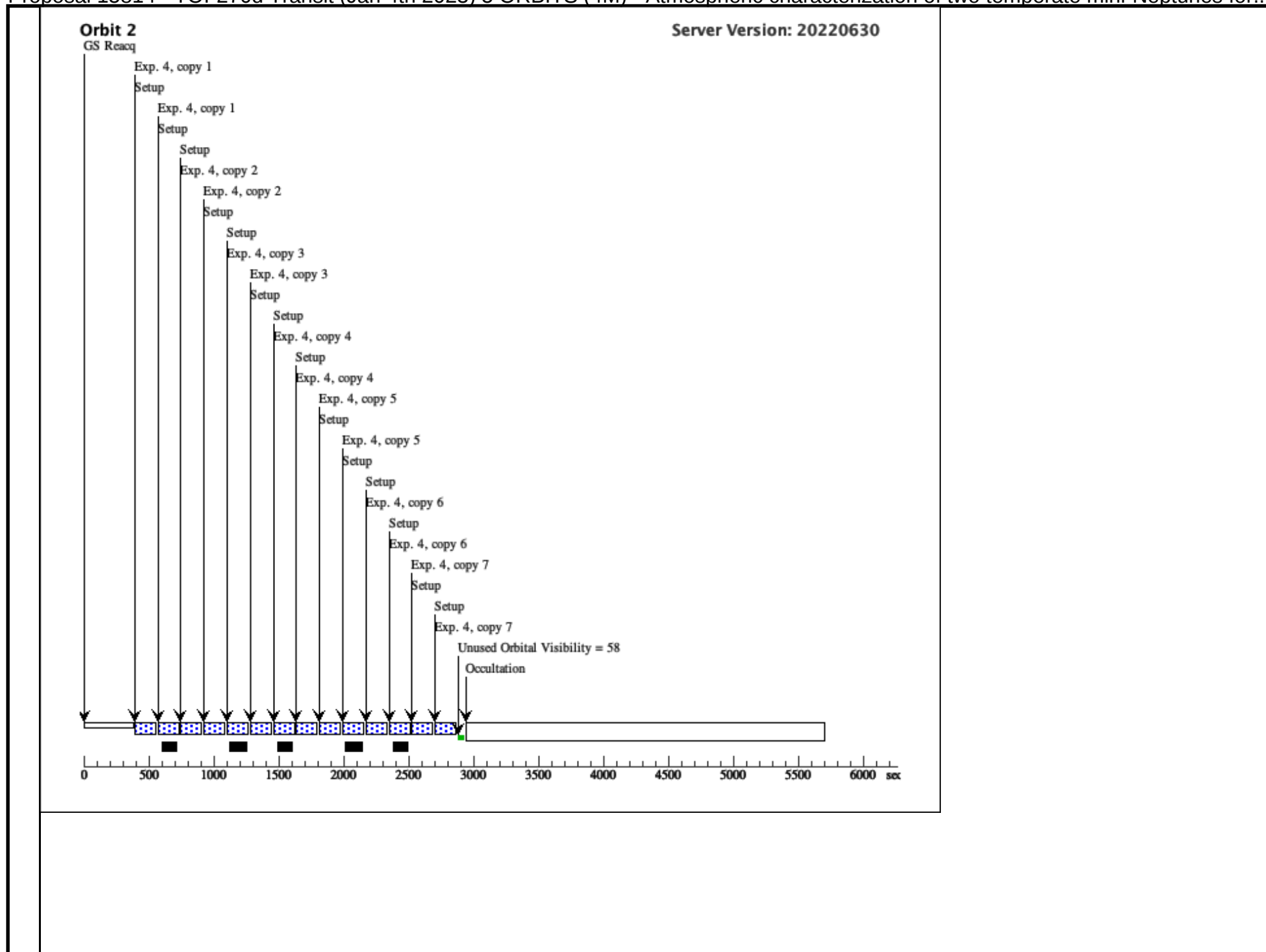
Proposal 15814 - TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M) - Atmospheric characterization of two temperate mini-Neptunes for...

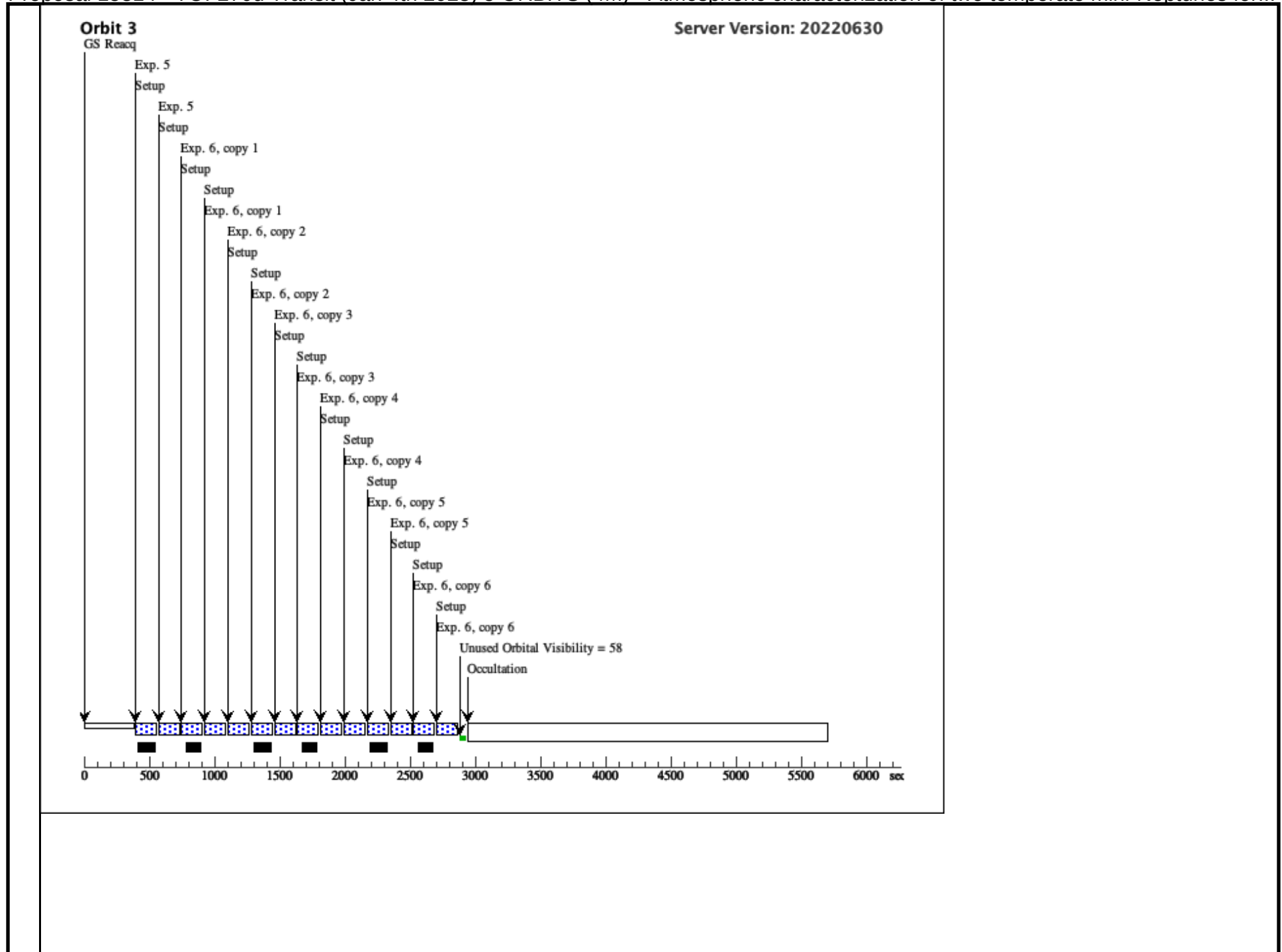
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

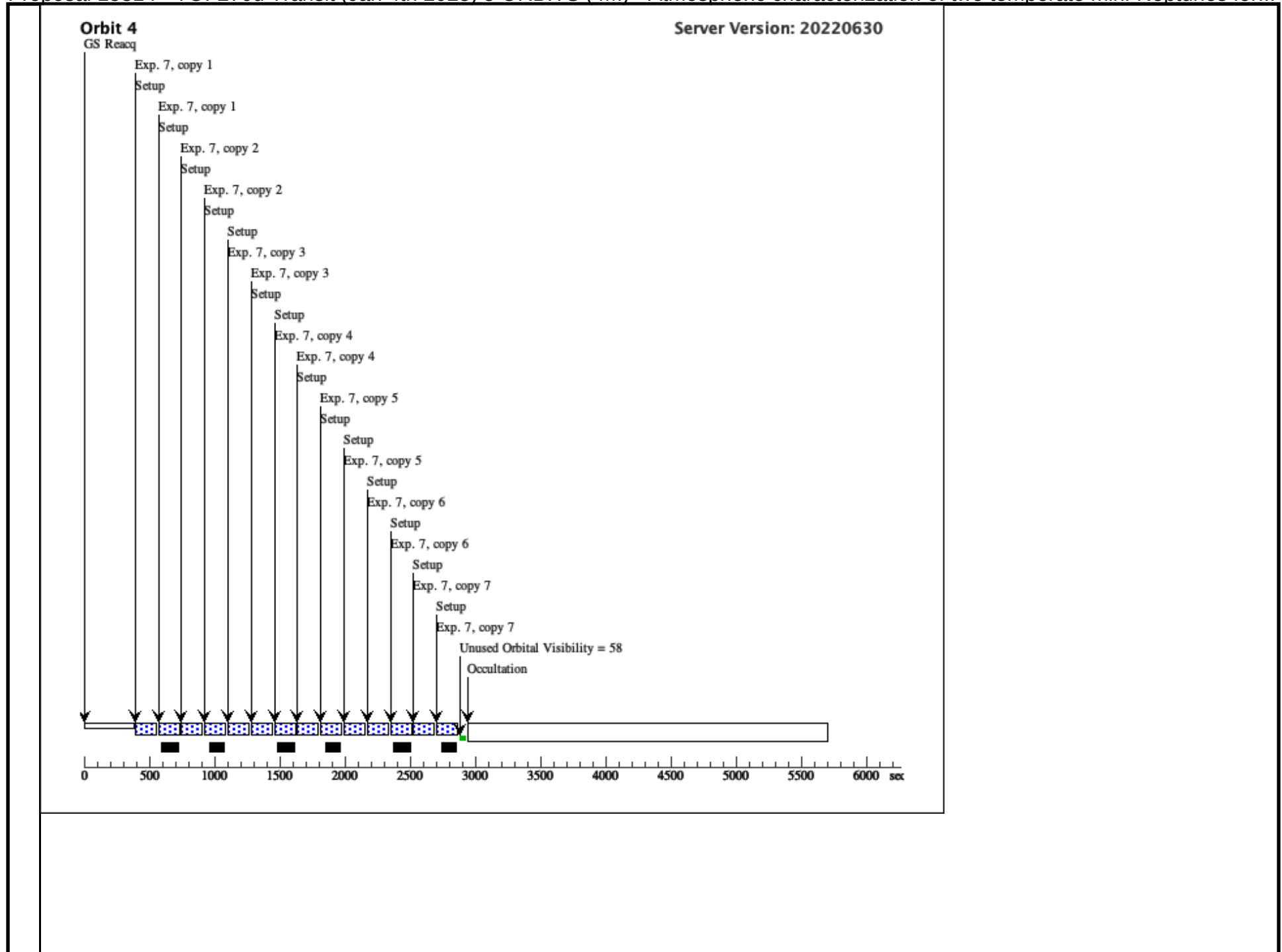
Proposal 15814 - TOI-270d Transit (Jan 4th 2023) 5 ORBITS (4M) - Atmospheric characterization of two temperate mini-Neptunes for...

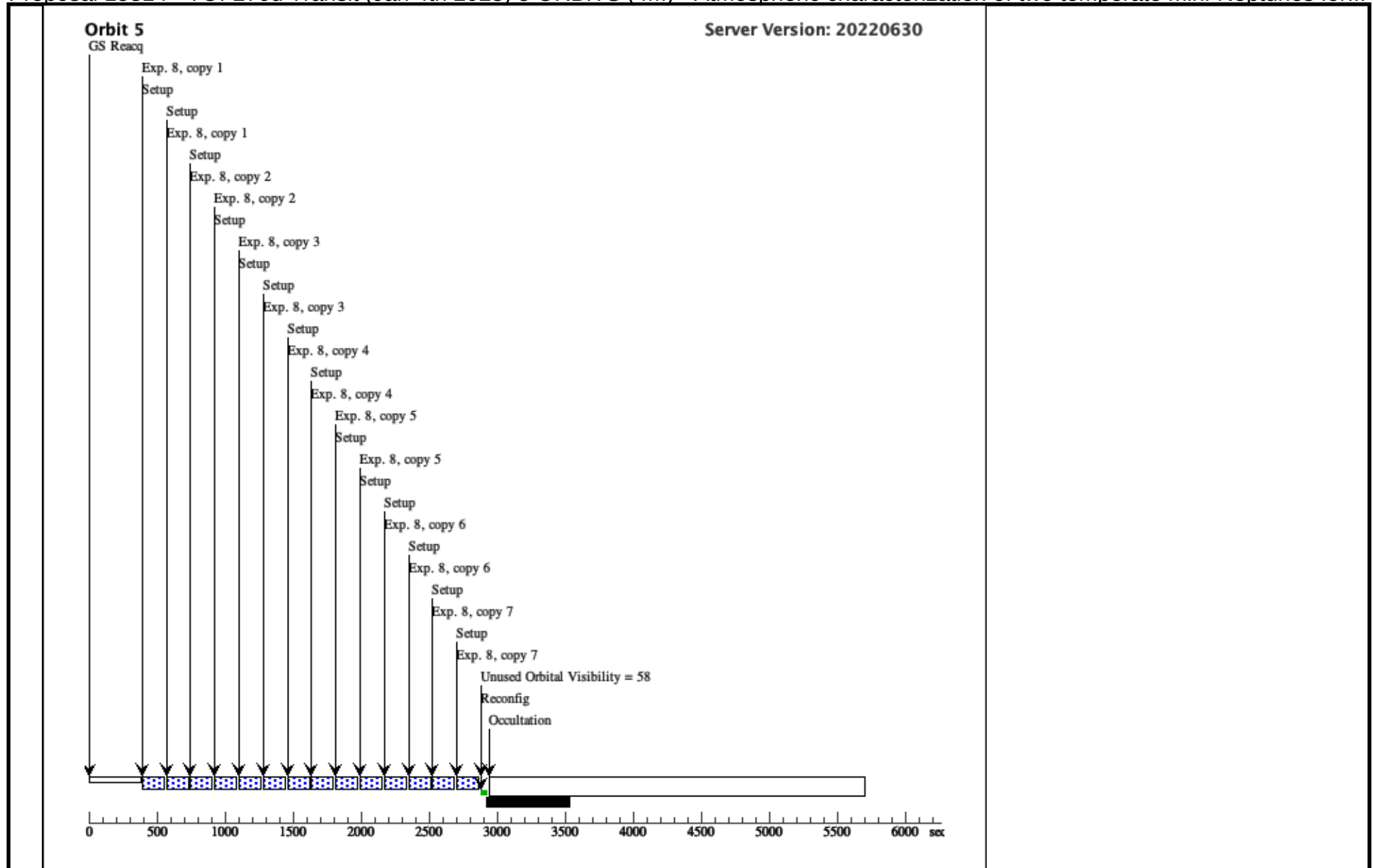
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Jan 4th 2023) 5 O RBITS (4M)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Jan 4th 2023) 5 O RBITS (4M)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
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8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Jan 4th 2023) 5 O RBITS (4M)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	











Proposal 15814 - TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N) - Atmospheric characterization of two temperate mini-Neptunes fo...

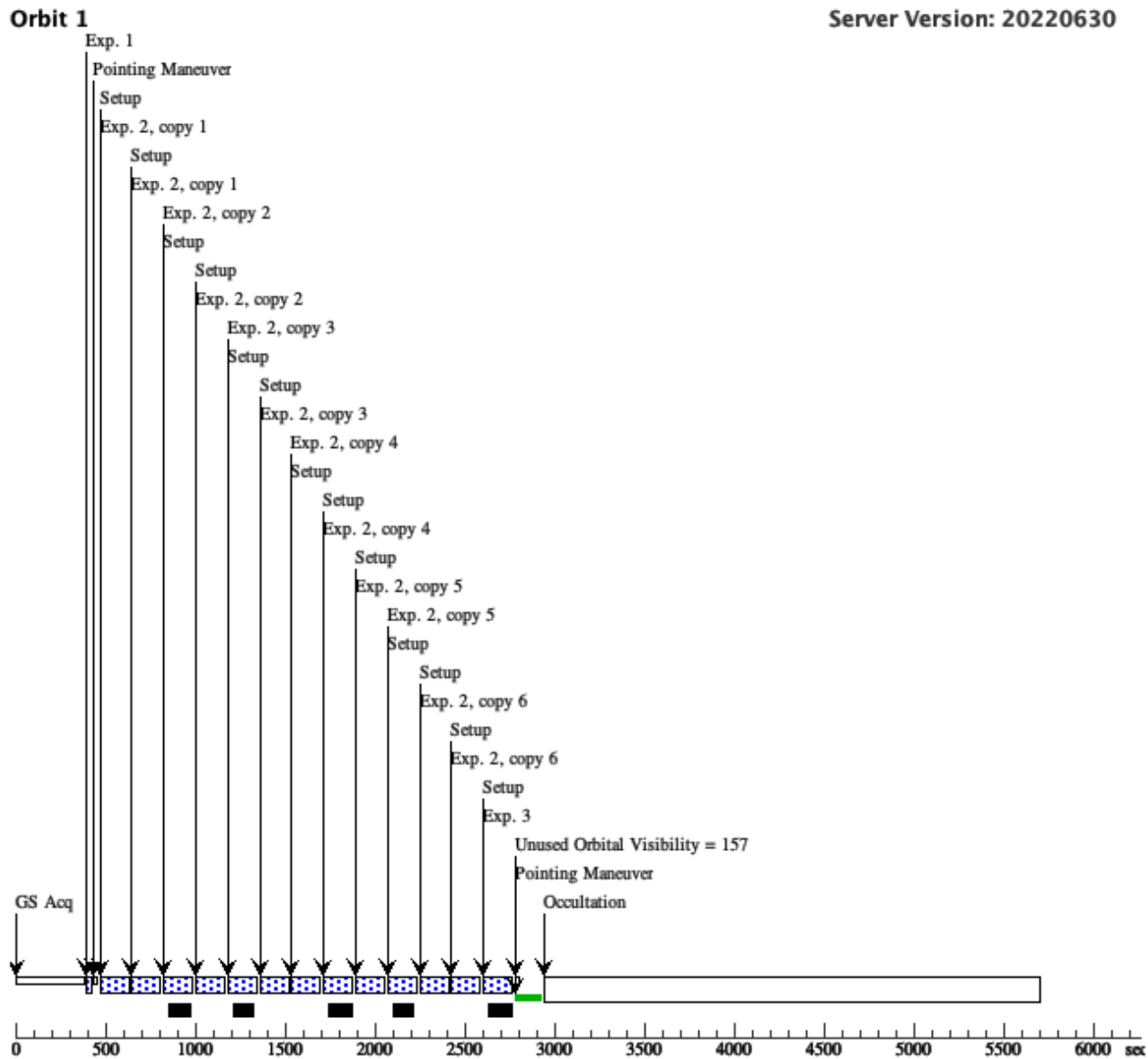
Visit	Proposal 15814, TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N), implementation					Mon Sep 26 21:02:44 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 13-JAN-2023:00:00:00 AND 17-JAN-2023:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459960.078455					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

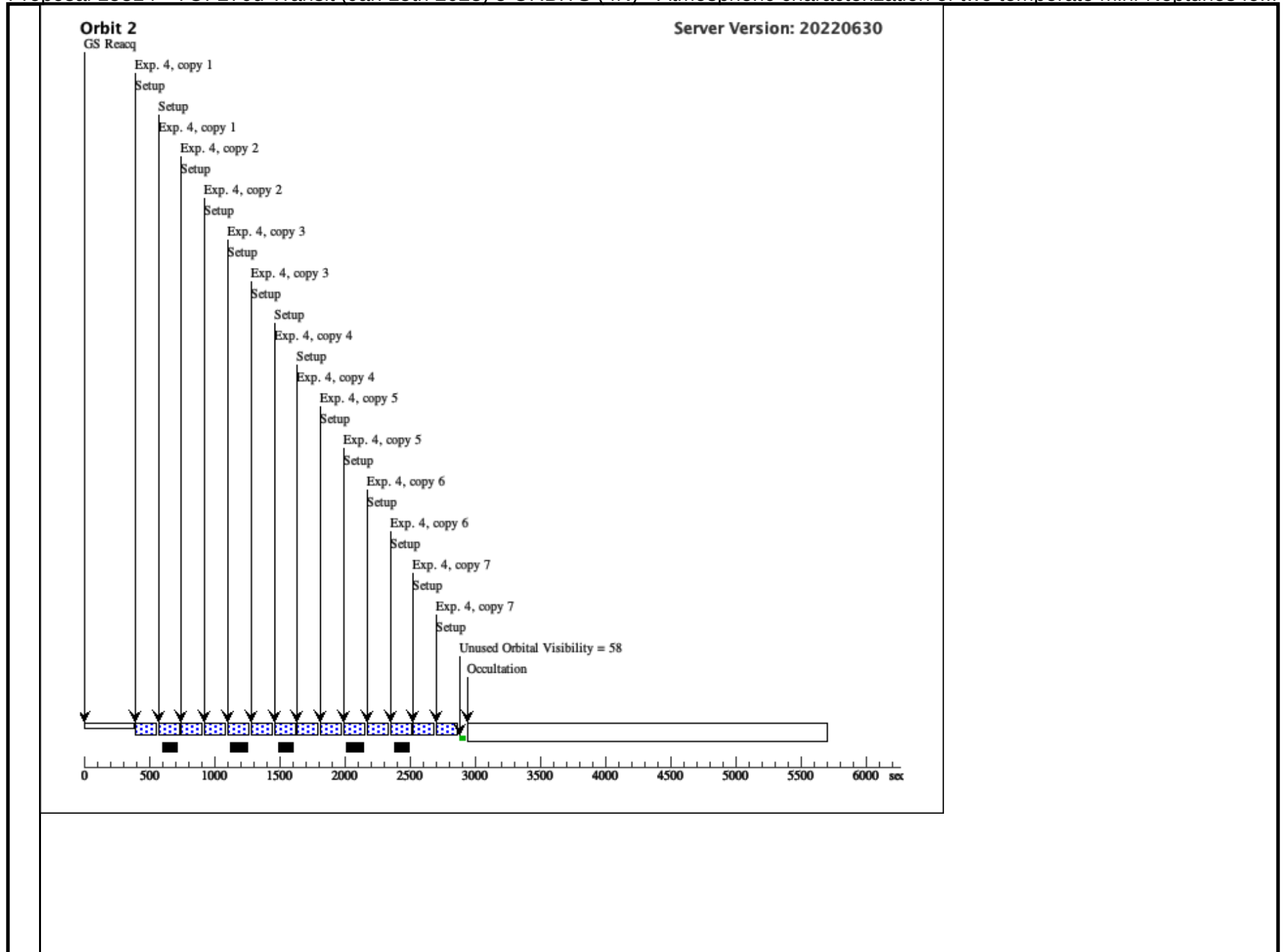
Proposal 15814 - TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N) - Atmospheric characterization of two temperate mini-Neptunes fo...

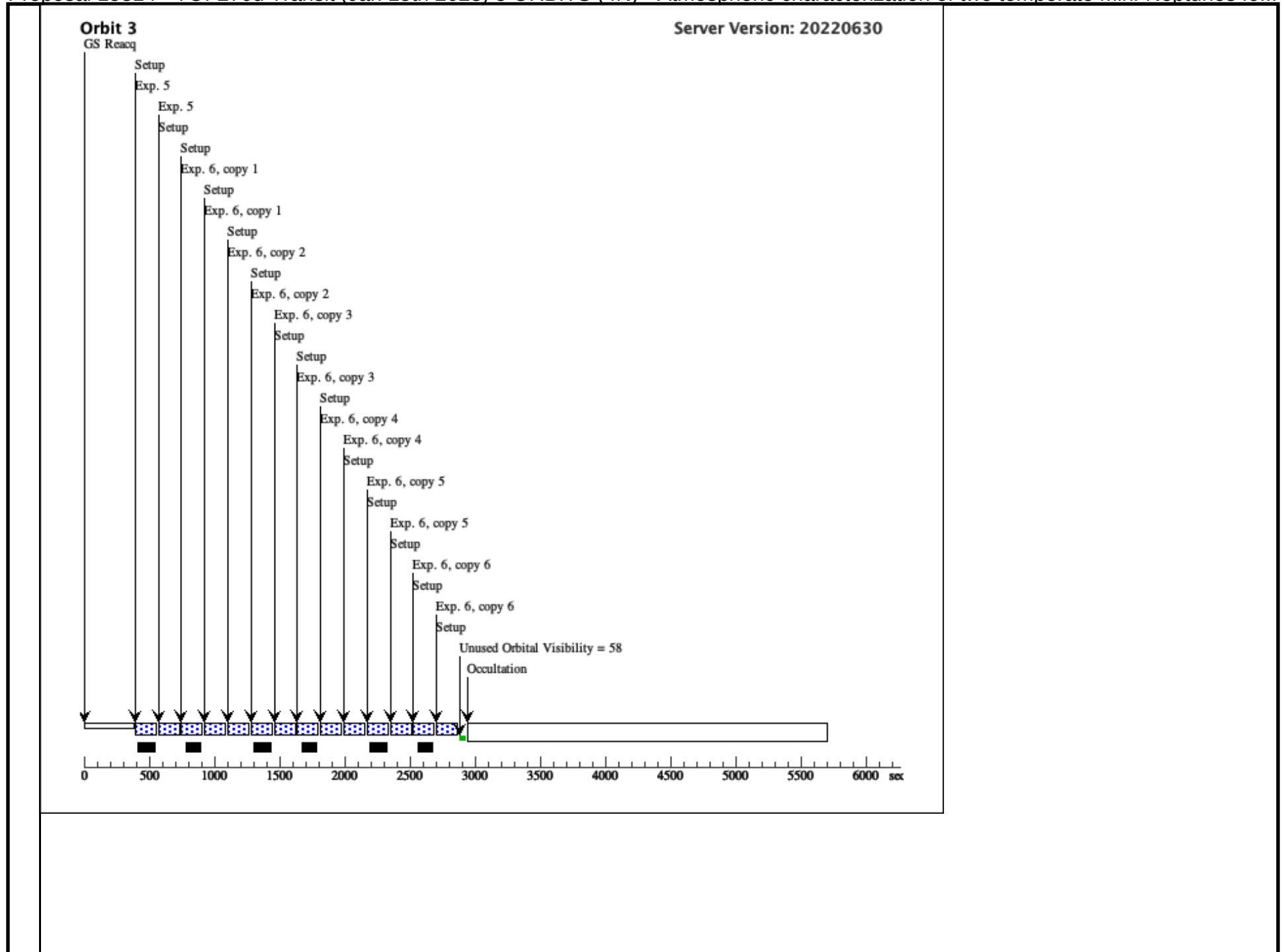
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

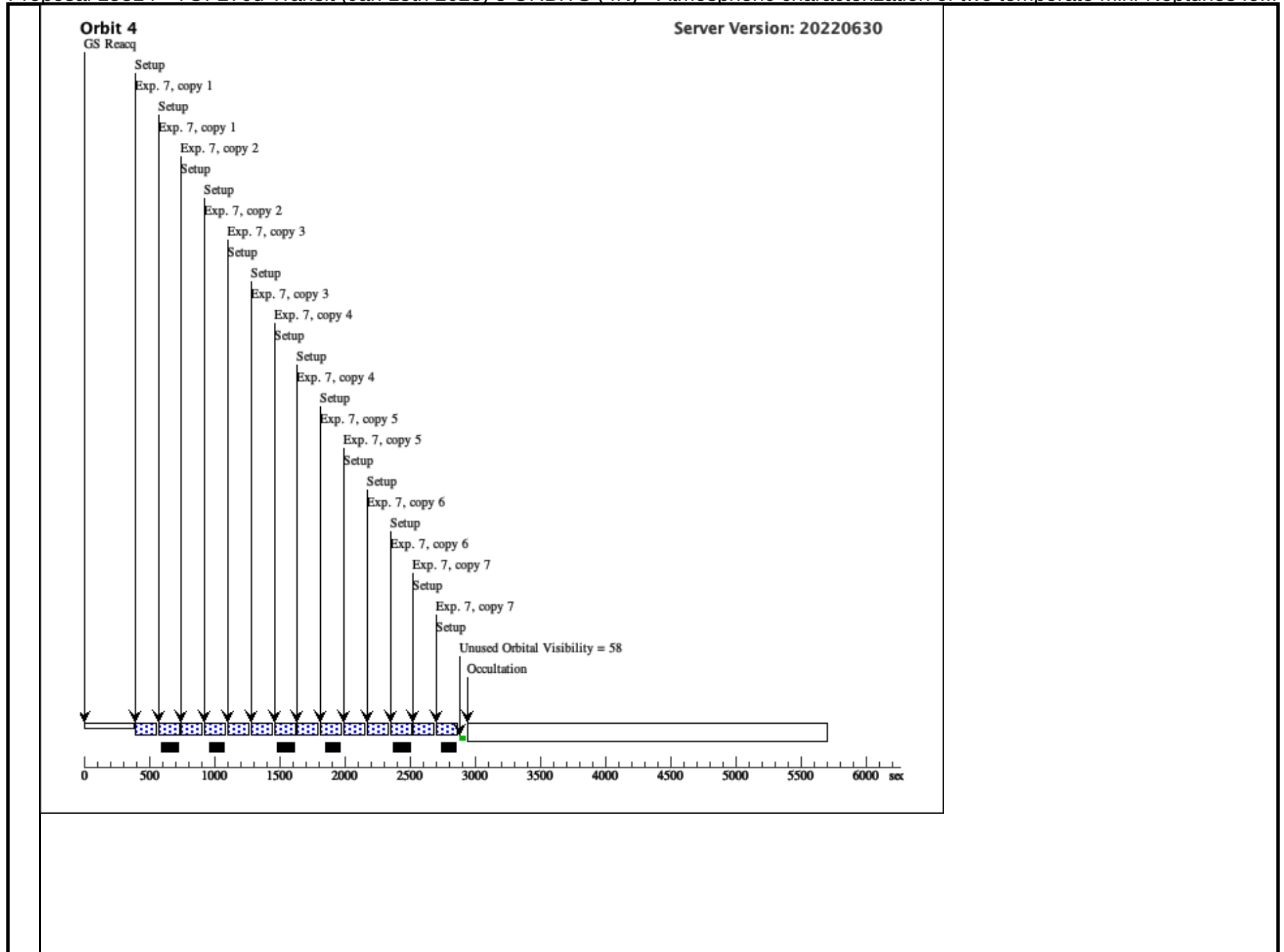
Proposal 15814 - TOI-270d Transit (Jan 15th 2023) 5 ORBITS (4N) - Atmospheric characterization of two temperate mini-Neptunes fo...

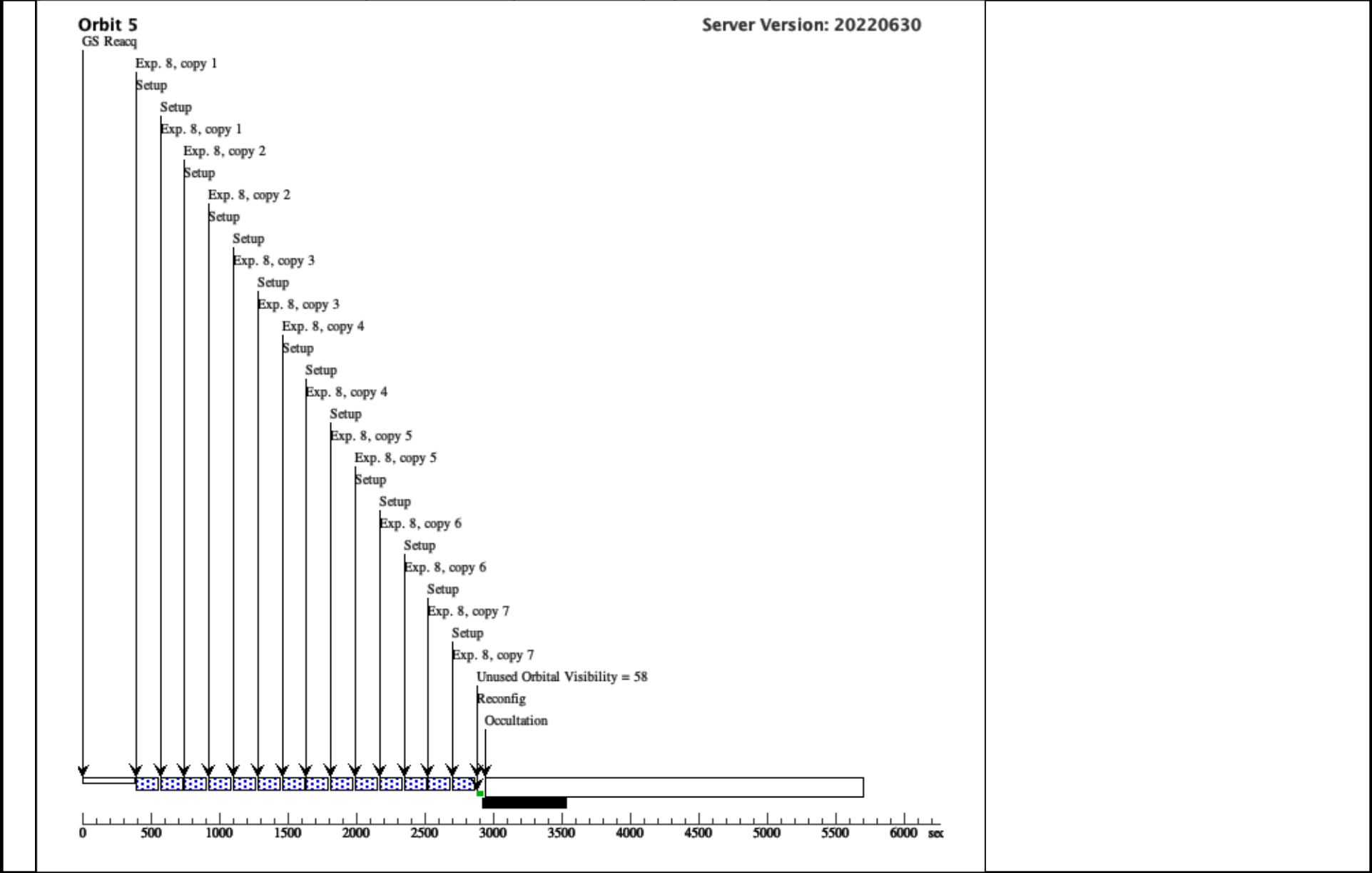
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Jan 15th 2023) 5 O RBITS (4N)	138.380533 Secs X 6 (1660.566 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[3]
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Jan 15th 2023) 5 O RBITS (4N)	138.380533 Secs X 7 (1937.327 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[4]
8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Jan 15th 2023) 5 O RBITS (4N)	138.380533 Secs X 7 (1937.327 Sec s) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[5]











Proposal 15814 - TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O) - Atmospheric characterization of two temperate mini-Neptunes fo...

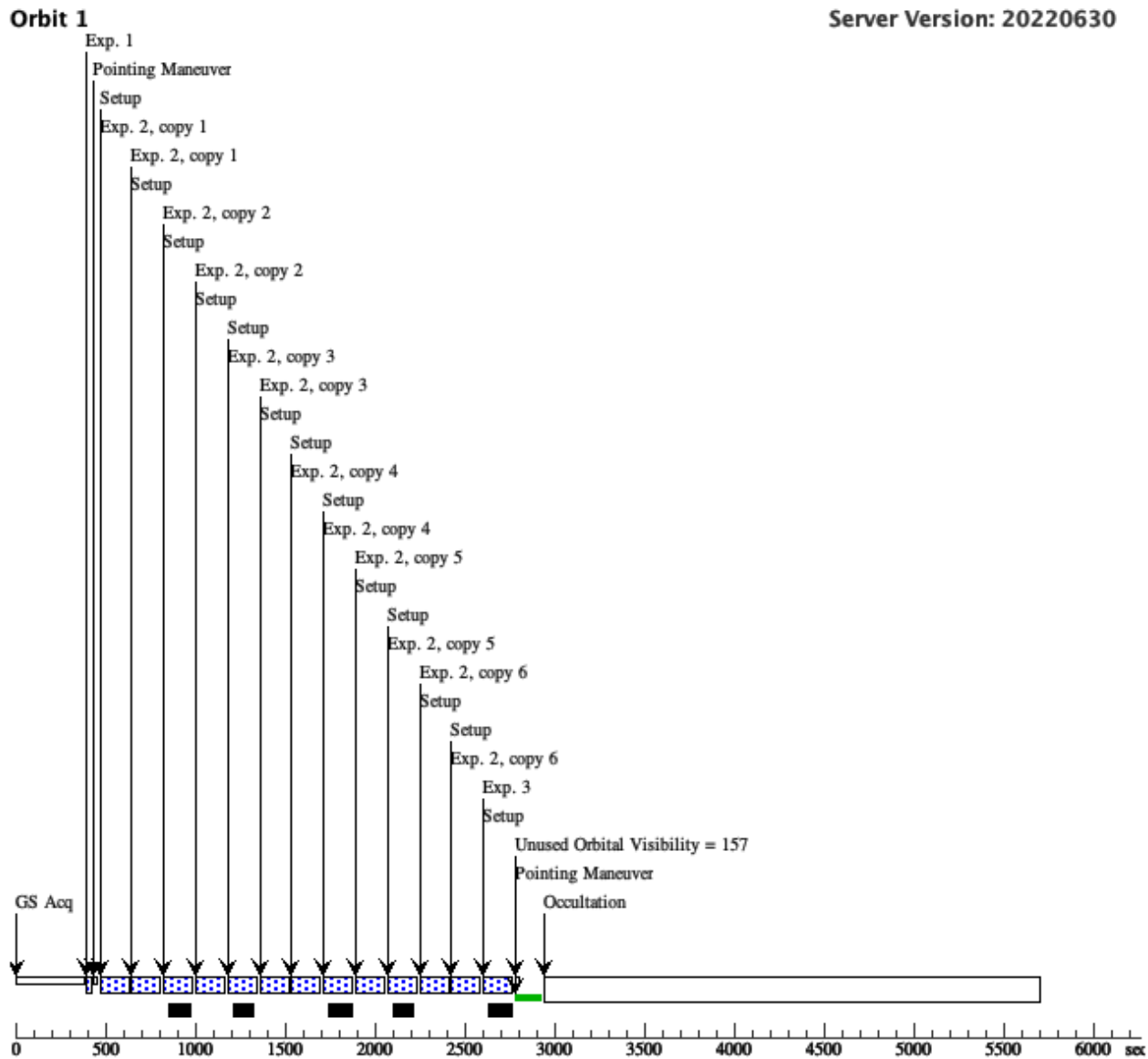
Visit	Proposal 15814, TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O), implementation					Mon Sep 26 21:02:44 GMT 2022
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 24-JAN-2023:00:00:00 AND 28-JAN-2023:00:00:00; Period 11.381940 D AND ZERO-PHASE HJD2459971.457922					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531	Reference Frame: ICRS
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]						

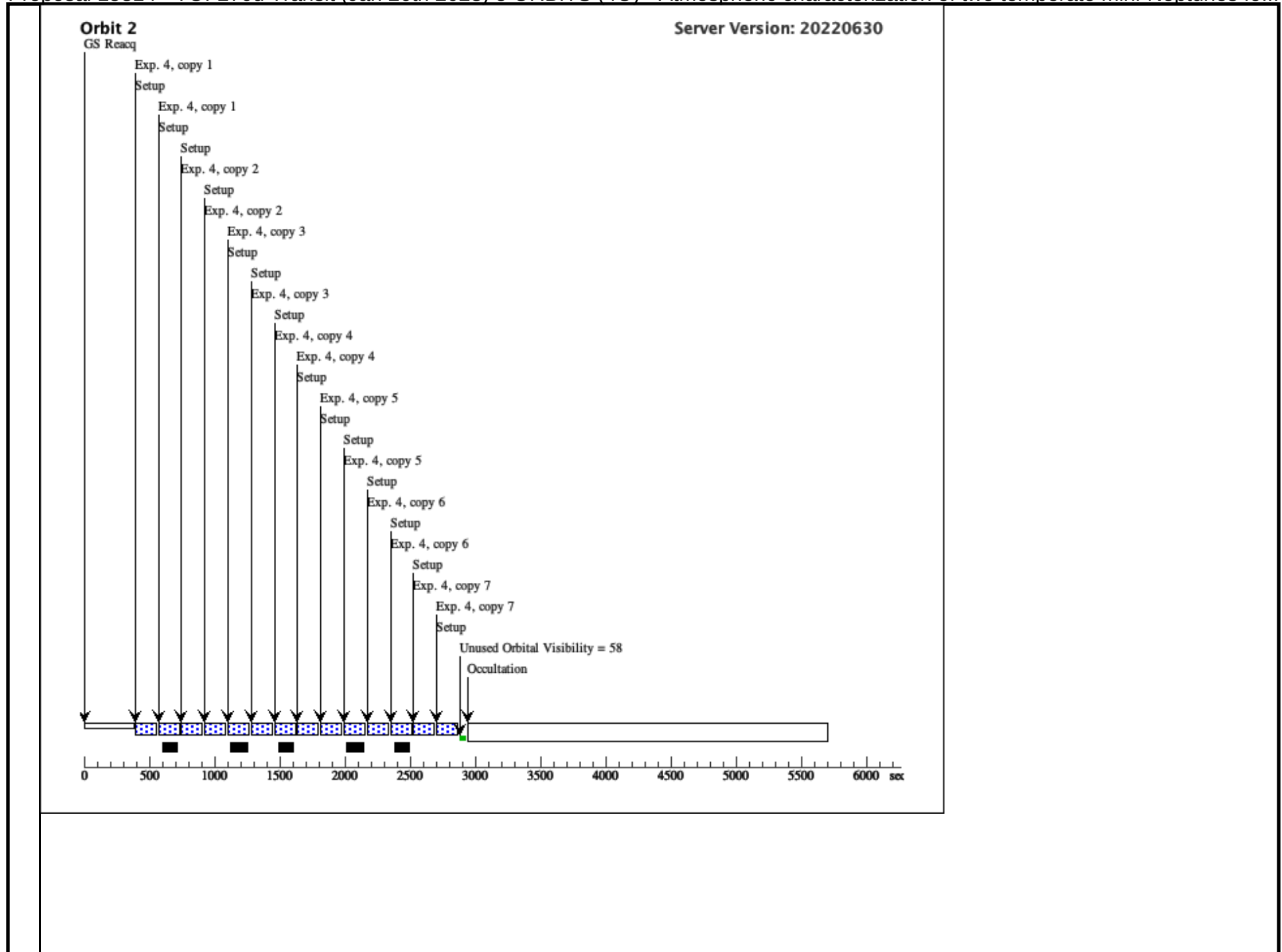
Proposal 15814 - TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O) - Atmospheric characterization of two temperate mini-Neptunes fo...

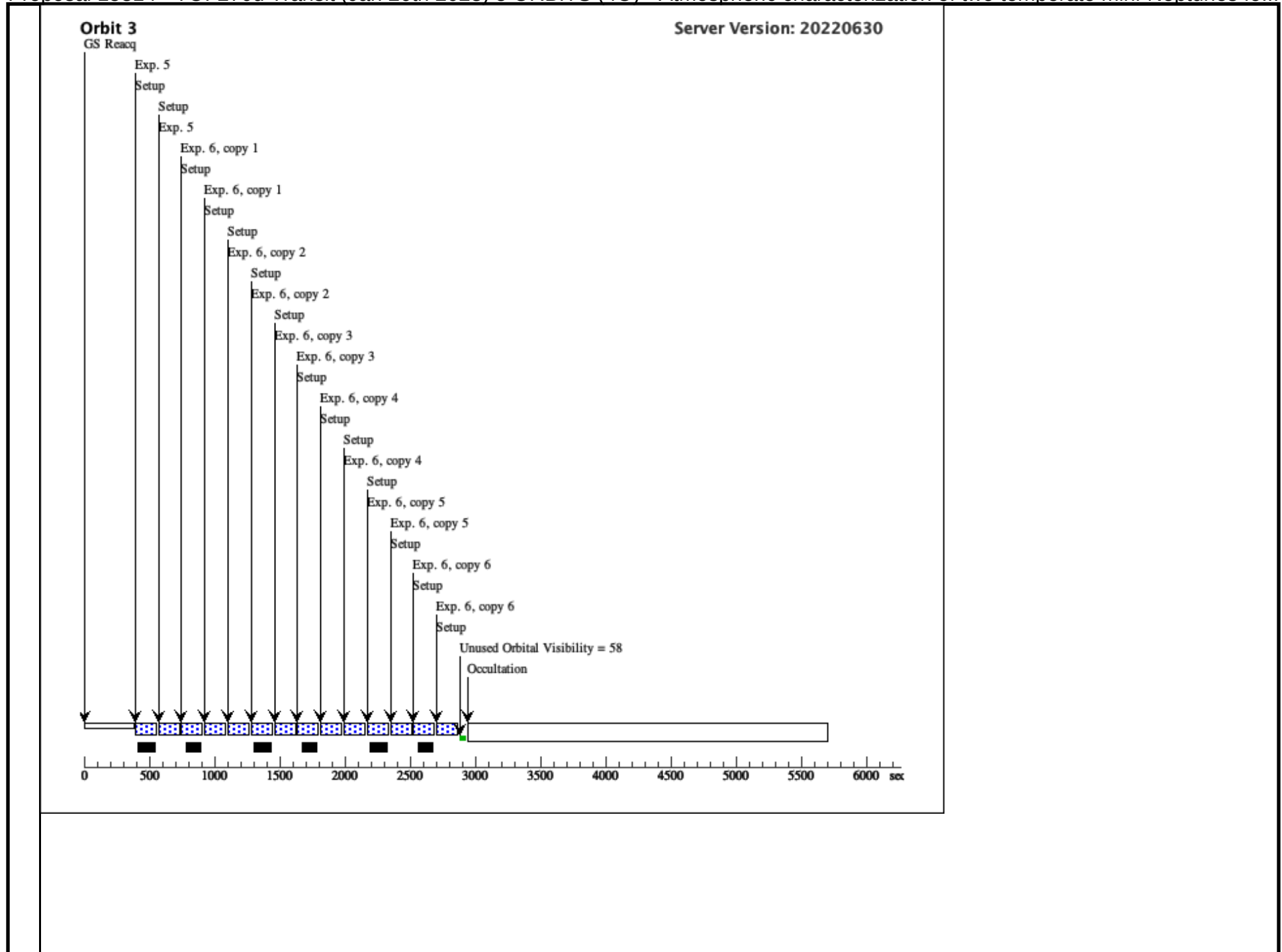
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-4 Non-Int in TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O)	138.380533 Secs X 7 (1937.327 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	POS TARG null,-20; SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99693 TO 0.00056	Sequence 5-6 Non-Int in TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[3]

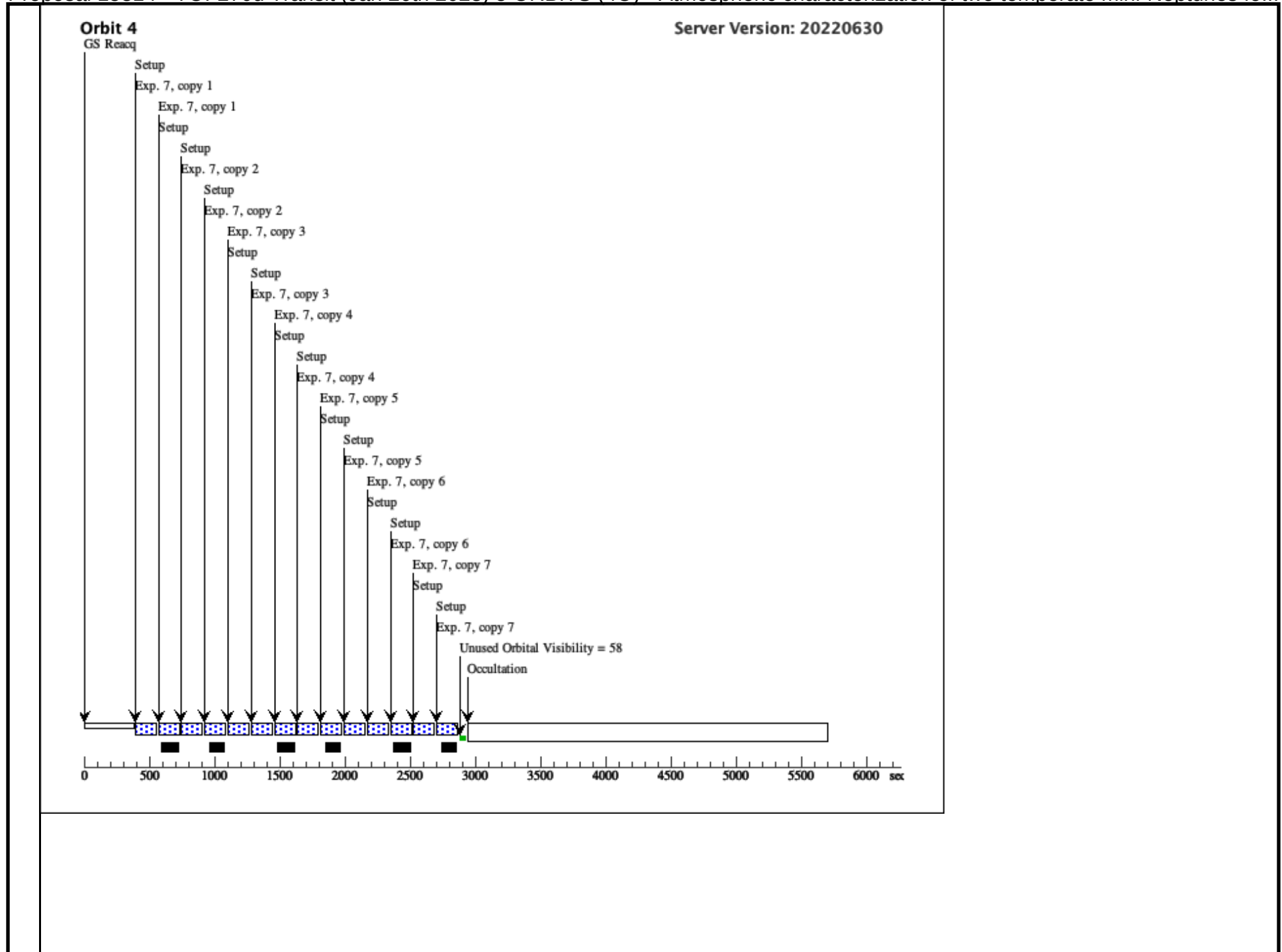
Proposal 15814 - TOI-270d Transit (Jan 26th 2023) 5 ORBITS (4O) - Atmospheric characterization of two temperate mini-Neptunes fo...

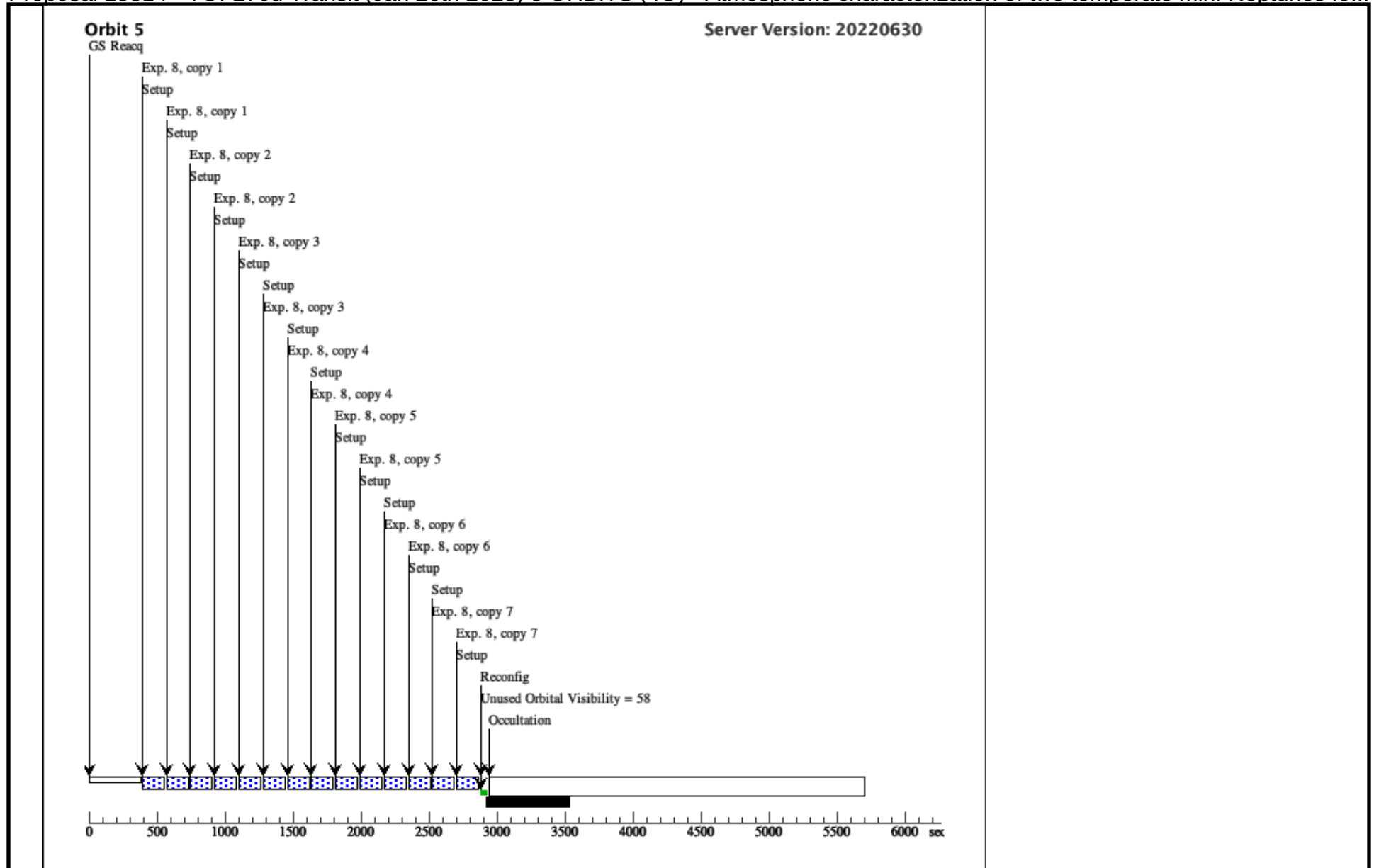
6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 5-6 Non-In t in TOI-270d Transi t (Jan 26th 2023) 5 O RBITS (4O)	138.380533 Secs X 6 (1660.566 Sec s)	[3]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	
7	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 7-7 Non-In t in TOI-270d Transi t (Jan 26th 2023) 5 O RBITS (4O)	138.380533 Secs X 7 (1937.327 Sec s)	[4]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	
8	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	POS TARG null,-20; SPATIAL SCAN 0.1 11,90.0 Degrees,Rou nd trip	Sequence 8-8 Non-In t in TOI-270d Transi t (Jan 26th 2023) 5 O RBITS (4O)	138.380533 Secs X 7 (1937.327 Sec s)	[5]
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	











Proposal 15814 - TOI-270c Transit (Mar 30th 2022) (0V) - Atmospheric characterization of two temperate mini-Neptunes formed in the...

Visit	Proposal 15814, TOI-270c Transit (Mar 30th 2022) (0V), completed Mon Sep 26 21:02:44 GMT 2022				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; BETWEEN 28-MAR-2022:00:00:00 AND 01-APR-2022:00:00:00; Period 5.66051 D AND ZERO-PHASE HJD2459668.766643				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	TOI-270	RA: 04 33 39.7202 (68.4155008d) Dec: -51 57 22.44 (-51.95623d) Equinox: J2000	Proper Motion RA: 82.944 mas/yr Proper Motion Dec: -269.755 mas/yr Epoch of Position: 2015.5	V=12.617 J=9.099, H=8.531
Comments: Copied ICRS J2000 coordinates and proper motions from SIMBAD by hand. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM]					

Proposal 15814 - TOI-270c Transit (Mar 30th 2022) (0V) - Atmospheric characterization of two temperate mini-Neptunes formed in the...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acq	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=3; SAMP-SEQ=RAPID		Sequence 1-3 Non-Int in TOI-270c Transit (Mar 30th 2022) (0V)	2.559081 Secs (2.559 Secs) [==>]	[1]
	2		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 1-3 Non-Int in TOI-270c Transit (Mar 30th 2022) (0V)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.11,90.0 Degrees,Forward	Sequence 1-3 Non-Int in TOI-270c Transit (Mar 30th 2022) (0V)	138.380533 Secs (138.381 Secs) [==>]	[1]
	4		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.11,90.0 Degrees,Round trip; PHASE 0.99492 TO 0.99972	Sequence 4-5 Non-Int in TOI-270c Transit (Mar 30th 2022) (0V)	138.380533 Secs (276.761 Secs) [==>(Forward)] [==>(Reverse)]	[2]
	5		(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPARS25	SPATIAL SCAN 0.11,90.0 Degrees,Round trip	Sequence 4-5 Non-Int in TOI-270c Transit (Mar 30th 2022) (0V)	138.380533 Secs X 6 (1660.566 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[2]

Proposal 15814 - TOI-270c Transit (Mar 30th 2022) (OV) - Atmospheric characterization of two temperate mini-Neptunes formed in the...

6	(1) TOI-270	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=7; SAMP-SEQ=SPAR S25	SPATIAL SCAN 0.1 11,90.0 Degrees, Round trip	Sequence 6-6 Non-In t in TOI-270c Transit (Mar 30th 2022) (OV)	138.380533 Secs X 7 (1937.327 Secs)	
							[==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[3]

