15856 - Searching for Secondary Atmospheres in a System of Benchmark Worlds

Cycle: 27, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Thomas Barclay (PI) (Contact)	**University of Maryland Baltimore County**	**barclay.astro@gmail.com**
Veselin Kostov (CoI)	NASA Goddard Space Flight Center	veselin.b.kostov@nasa.gov
Dr. Knicole Colon (CoI)	NASA Goddard Space Flight Center	knicole.colon@nasa.gov
Dr. Elisa V Quintana (CoI)	NASA Goddard Space Flight Center	elisa.quintana@nasa.gov
Dr. Eric David Lopez (CoI)	NASA Goddard Space Flight Center	eric.d.lopez@nasa.gov
Dr. Allison Youngblood (CoI)	University of Colorado at Boulder	allison.a.youngblood@gmail.com
Dr. Ravi Kopparapu (CoI)	NASA Goddard Space Flight Center	ravikumar.kopparapu@nasa.gov
Dr. Laura Kreidberg (CoI) (ESA Member)	Max Planck Institute for Astronomy	kreidberg@mpia.de
Dr. Susan Elizabeth Mullally (CoI)	Space Telescope Science Institute	smullally@stsci.edu
Daria Pidhorodetska (CoI)	NASA Goddard Space Flight Center	daria.pidhorodetska@nasa.gov
Dr. Ian Crossfield (CoI)	University of Kansas Center for Research, Inc.	ianc@ku.edu
Dr. Joshua Schlieder (CoI)	NASA Goddard Space Flight Center	joshua.e.schlieder@nasa.gov
Fergal Mullally (CoI)	Orbital Insight	fergal.mullally@gmail.com
Jonathan Brande (CoI)	University of Kansas Center for Research, Inc.	jbrande@ku.edu
Dr. Renyu Hu (CoI)	Jet Propulsion Laboratory	renyu.hu@jpl.nasa.gov
Laura Daniela Vega (CoI)	Vanderbilt University	laura.daniela.vega@gmail.com
Dr. Caroline Morley (CoI)	University of Texas at Austin	cmorley@utexas.edu
Dr. Thomas Fauchez (CoI)	NASA Goddard Space Flight Center	thomas.j.fauchez@nasa.gov
Ms. Emily Gilbert (CoI)	University of Chicago	emilygilbert@uchicago.edu
Dr. Giada Nicole Arney (CoI)	NASA Goddard Space Flight Center	giada.n.arney@nasa.gov
Dr. Lucianne M. Walkowicz (CoI)	The Adler Planetarium & Astronomy Museum	lwalkowicz@adlerplanetarium.org
Dr. Avi Mandell (CoI)	NASA Goddard Space Flight Center	avram.m.mandell@nasa.gov

Name	*Institution*	*E-Mail*
Dr. Shawn D. Domagal-Goldman (CoI)	NASA Goddard Space Flight Center	shawn.goldman@nasa.gov

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) L-98-59	WFC3/IR	4	12-Nov-2020 14:00:44.0	yes
02	(1) L-98-59	WFC3/IR	4	12-Nov-2020 14:01:12.0	yes
03	(1) L-98-59	WFC3/IR	4	12-Nov-2020 14:01:41.0	yes
04	(1) L-98-59	WFC3/IR	4	12-Nov-2020 14:02:08.0	yes
05	(1) L-98-59	WFC3/IR	4	12-Nov-2020 14:02:36.0	yes
06	(1) L-98-59	WFC3/IR	4	12-Nov-2020 14:03:04.0	yes
07	(1) L-98-59	WFC3/IR	4	12-Nov-2020 14:03:31.0	yes

28 Total Orbits Used

ABSTRACT

We are moving from an era of exoplanet discovery into an era of exoplanet characterization, but small, potentially-rocky planets orbiting bright, nearby stars that are suitable for atmospheric characterization studies are relatively scarce. Here we propose to obtain time series spectroscopy using WFC3/IR to test for detectable atmospheric signatures of the three recently-discovered small planets (R=0.7, 1.3, and 1.4 Rearth) orbiting the nearby (10.6 pc), bright (H = 7.4) M3 dwarf L 98-59, the second closest transiting multiplanet system. The equilibrium temperatures for the outer two planets are close to or less than the H2 molecular escape temperature, raising the possibility of hydrogen-dominated atmospheres. We propose to obtain one transit for each of the outer two planets to test for hydrogen-dominated atmospheres. For the innermost sub-Earth-sized planet, due to its low expected gravity, a hydrogen atmosphere would be highly vulnerable to atmospheric escape. However, a water-dominated atmosphere is much more resilient, so we propose five transits of the innermost planet to test for a cloud-free water-dominated atmosphere. The host star is particularly quiet with no detected flares or rotational modulation, allowing a comparison between small planets orbiting an active late M-dwarf (TRAPPIST-1) and those around a quiet early M-dwarf (L 98-59), and pave the path for atmospheric characterization of the L 98-59 planets with JWST.

OBSERVING DESCRIPTION

The program will obtain time series spectroscopy of each of the three planets in the L98-59 planetary system. We will use WFC3's G141 grism and the 512x512 subarray. We will cover 5 transits of planet b, 1 transit of planet c, and 1 transit of planet d. Each transit is covered by a single visit, and each visit consists of four sequential orbits to obtain quasi-continuous coverage of the transits. The actual planet transits will occur in the third orbit of each visit, with two pre-transit orbits and one post-transit orbit. We will use the first orbit of each visit in our construction of the out-of-transit baseline flux if instrument systematics allow. Each orbit begins with a direct image of the target with the F130N filter for wavelength calibration. The remainder of each orbit will consist of MULTIACCUM exposures with the NSAMP = 4, SPARS25 readout pattern. To keep the fluence near 30,000 photoelectrons, we will use spatial scan mode with a 0.496 arcsec/sec scan rate, yielding a total scan height of 285.3 pixels), as recommended by Pandexo. To maximize the duty cycle of the observations (~60%), we will alternate between forward and reverse scanning along the detector.

Visit

Proposal 15856, planet b transit 1/5 (01), completed Thu Nov 12 19:03:35 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: Period 2.2531427 D AND ZERO-PHASE HJD2458366.1701

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	L-98-59	RA: 08 18 7.8865 (124.5328604d) Dec: -68 18 52.08 (-68.31447d) Equinox: J2000	Proper Motion RA: 0.017097678098934456 sec of time/yr Proper Motion Dec: -0.34046999996917293 arcsec/yr Epoch of Position: 2015.5	V=11.685	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANET, EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

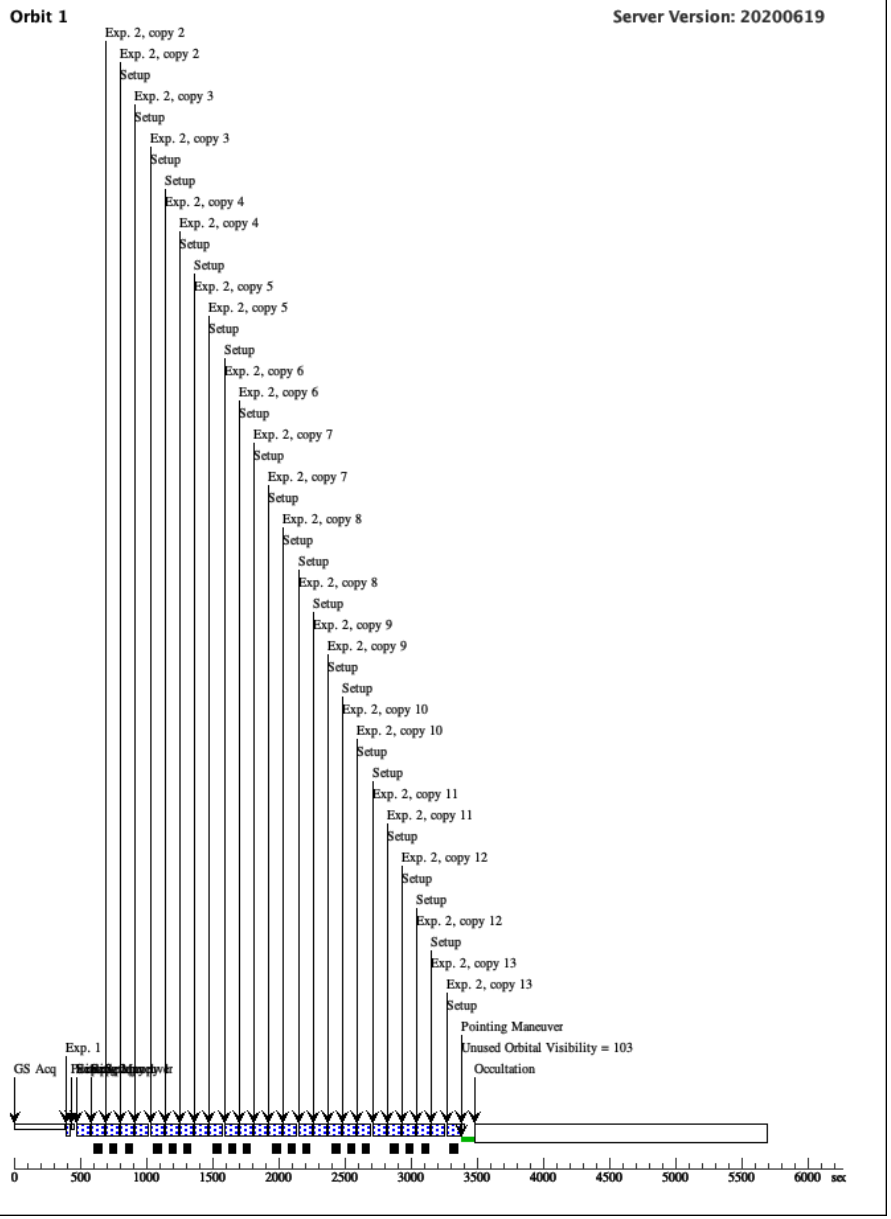
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID	PHASE 0.93034350 3921 TO 0.93650779 561	Sequence 1-2 Non-Int in planet b transit 1/5 (01)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[1]***
2		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 1-2 Non-Int in planet b transit 1/5 (01)	69.61678 Secs X 13 (1810.036 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	 ***[1]***
3		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 3-4 Non-Int in planet b transit 1/5 (01)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[2]***

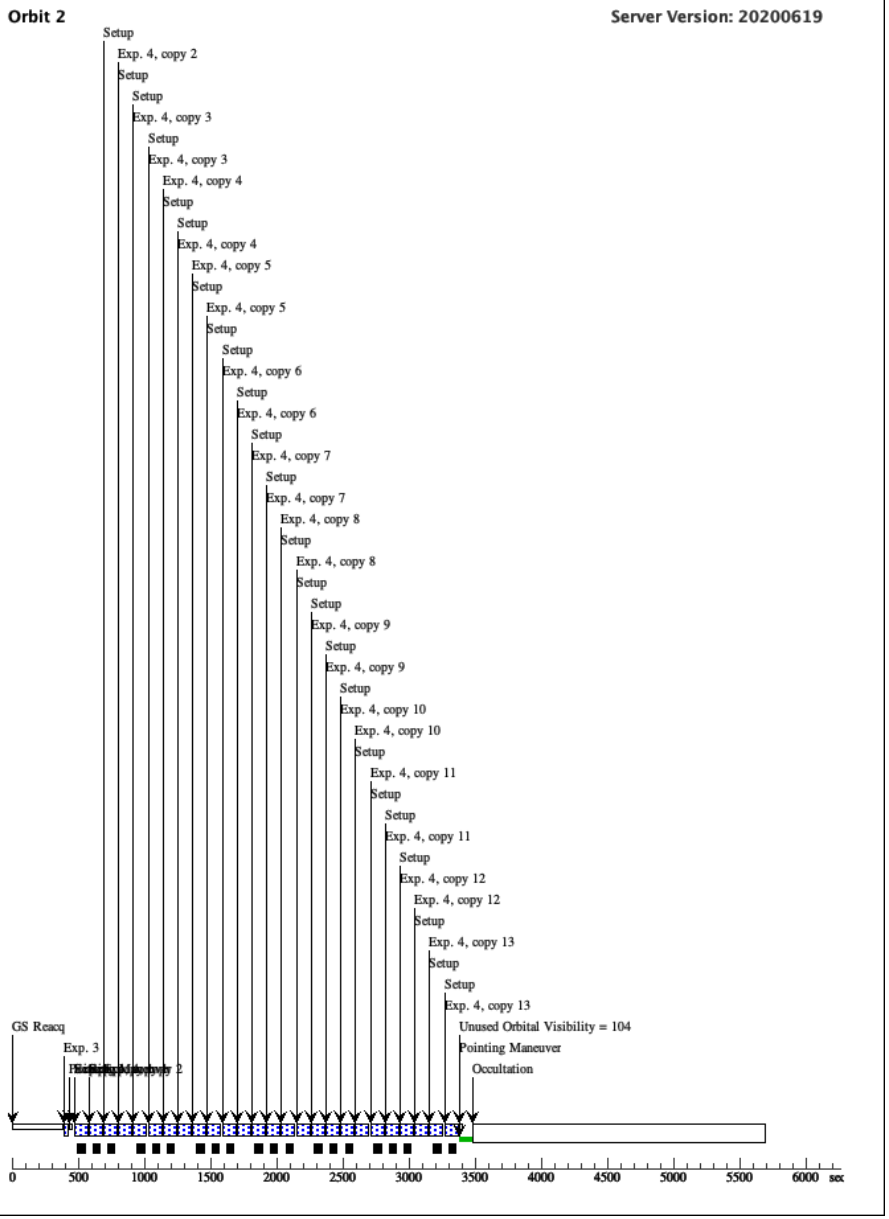
	4	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 3-4 Non-Int in planet b transit 1/5 (01)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[2]***
	5	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 5-6 Non-Int in planet b transit 1/5 (01)	1.706054 Secs (1.706 Secs) *[==>]*	***[3]***

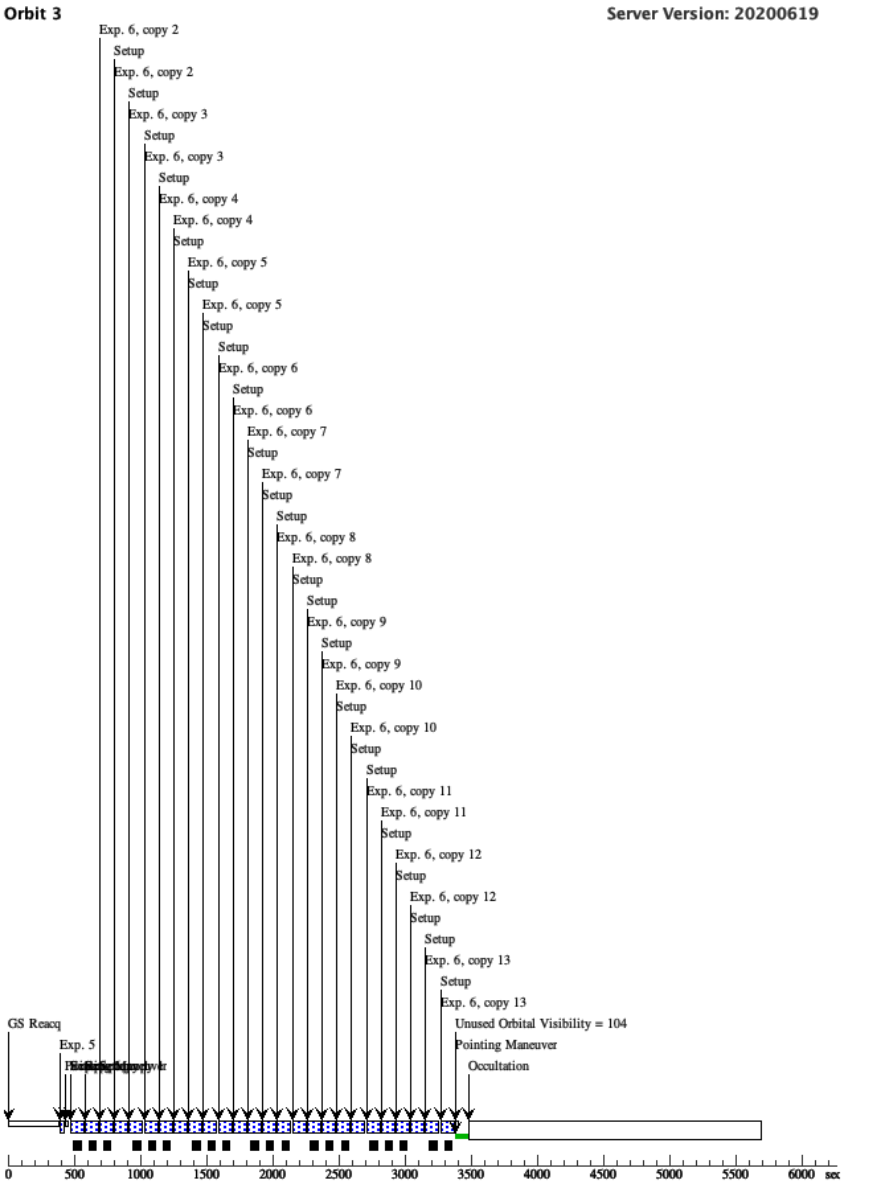
	6	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 5-6 Non-Int in planet b transit 1/5 (01)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[3]***
	7	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 7-8 Non-Int in planet b transit 1/5 (01)	1.706054 Secs (1.706 Secs) *[==>]*	***[4]***

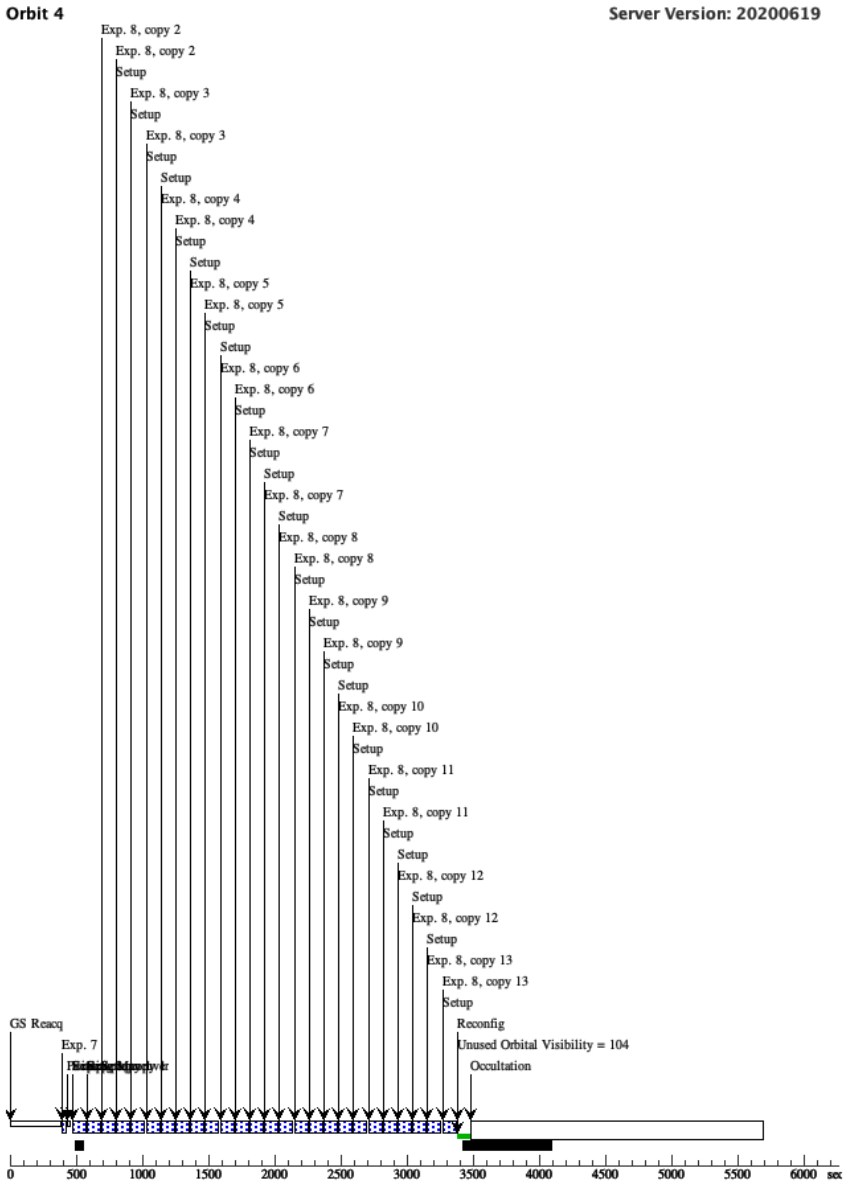
	8	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 7-8 Non-Int in planet b transit 1/5 (01)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20200619
Setup
Exp. 4, copy 2
Setup
Setup
Exp. 4, copy 3
Setup
Exp. 4, copy 3
Exp. 4, copy 4
Setup
Setup
Exp. 4, copy 4
Exp. 4, copy 5
Setup
Exp. 4, copy 5
Setup
Setup
Exp. 4, copy 6
Setup
Exp. 4, copy 6
Setup
Exp. 4, copy 7
Setup
Exp. 4, copy 7
Exp. 4, copy 8
Setup
Exp. 4, copy 8
Setup
Setup
Exp. 4, copy 9
Setup
Exp. 4, copy 9
Setup
Exp. 4, copy 10
Exp. 4, copy 10
Setup
Exp. 4, copy 11
Setup
Setup
Exp. 4, copy 11
Setup
Exp. 4, copy 12
Exp. 4, copy 12
Setup
Exp. 4, copy 13
Setup
Setup
Exp. 4, copy 13
Unused Orbital Visibility = 104
Pointing Maneuver
Occultation
GS Reacq
Exp. 3
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20200619
Exp. 6, copy 2
Setup
Exp. 6, copy 2
Setup
Exp. 6, copy 3
Setup
Exp. 6, copy 3
Setup
Exp. 6, copy 4
Exp. 6, copy 4
Setup
Exp. 6, copy 5
Setup
Exp. 6, copy 5
Setup
Setup
Exp. 6, copy 6
Setup
Exp. 6, copy 6
Exp. 6, copy 7
Setup
Exp. 6, copy 7
Setup
Setup
Exp. 6, copy 8
Exp. 6, copy 8
Setup
Setup
Exp. 6, copy 9
Setup
Exp. 6, copy 9
Exp. 6, copy 10
Setup
Exp. 6, copy 10
Setup
Setup
Exp. 6, copy 11
Exp. 6, copy 11
Setup
Exp. 6, copy 12
Setup
Exp. 6, copy 12
Setup
Setup
Exp. 6, copy 13
Setup
Exp. 6, copy 13
Unused Orbital Visibility = 104
Pointing Maneuver
Occultation
GS Reacq
Exp. 5
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20200619
Exp. 8, copy 2
Exp. 8, copy 2
Setup
Exp. 8, copy 3
Setup
Exp. 8, copy 3
Setup
Setup
Exp. 8, copy 4
Exp. 8, copy 4
Setup
Setup
Exp. 8, copy 5
Exp. 8, copy 5
Setup
Setup
Exp. 8, copy 6
Exp. 8, copy 6
Setup
Exp. 8, copy 7
Setup
Setup
Exp. 8, copy 7
Setup
Exp. 8, copy 8
Exp. 8, copy 8
Setup
Exp. 8, copy 9
Setup
Exp. 8, copy 9
Setup
Setup
Exp. 8, copy 10
Exp. 8, copy 10
Setup
Exp. 8, copy 11
Setup
Exp. 8, copy 11
Setup
Setup
Exp. 8, copy 12
Setup
Exp. 8, copy 12
Setup
Exp. 8, copy 13
Exp. 8, copy 13
Setup
Reconfig
GS Reacq
Exp. 7
Unused Orbital Visibility = 104
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15856, planet b transit 2/5 (02), completed Thu Nov 12 19:03:35 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: Period 2.2531427 D AND ZERO-PHASE HJD2458366.1701

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	L-98-59	RA: 08 18 7.8865 (124.5328604d) Dec: -68 18 52.08 (-68.31447d) Equinox: J2000	Proper Motion RA: 0.017097678098934456 sec of time/yr Proper Motion Dec: -0.34046999996917293 arcsec/yr Epoch of Position: 2015.5	V=11.685	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANET, EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

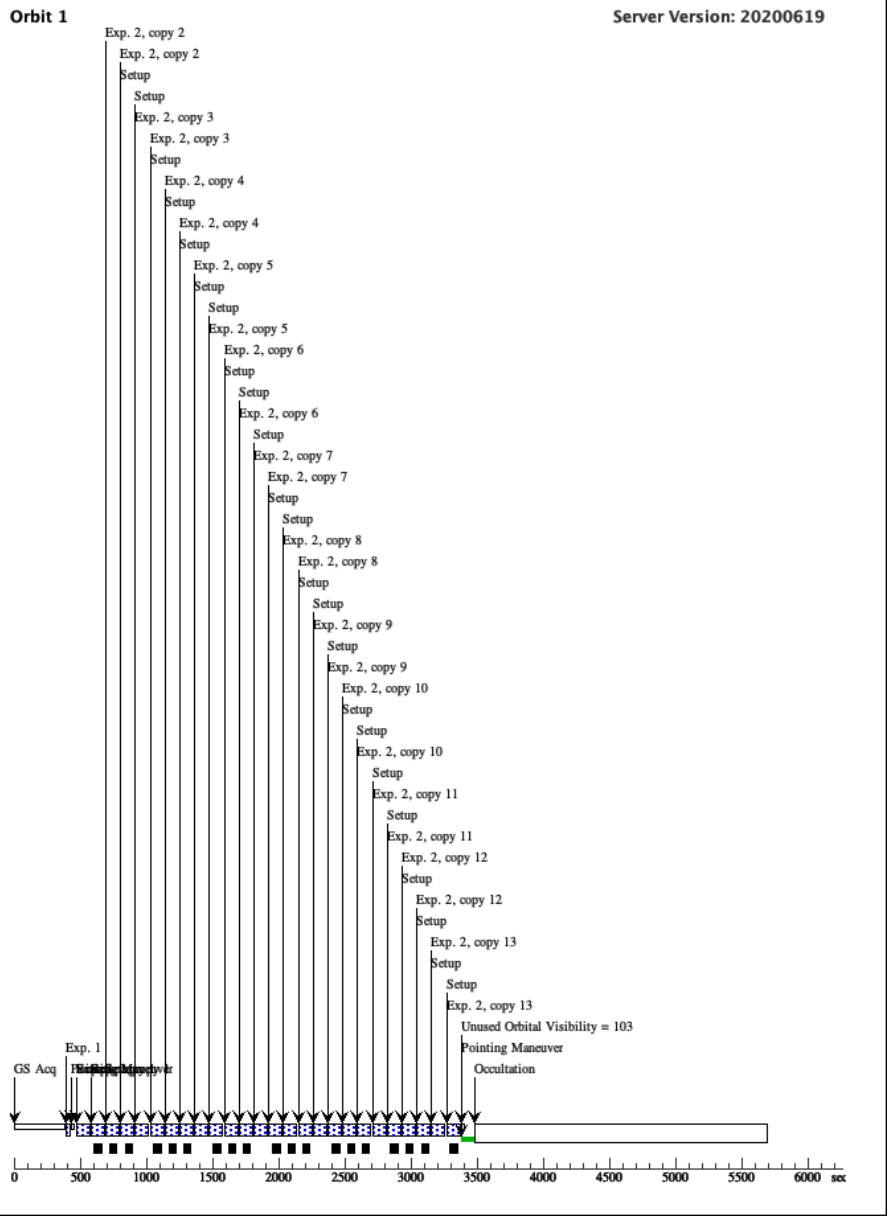
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID	PHASE 0.93034350 3921 TO 0.93650779 561	Sequence 1-2 Non-Int in planet b transit 2/5 (02)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[1]***
2		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 1-2 Non-Int in planet b transit 2/5 (02)	69.61678 Secs X 13 (1810.036 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	 ***[1]***
3		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 3-4 Non-Int in planet b transit 2/5 (02)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[2]***

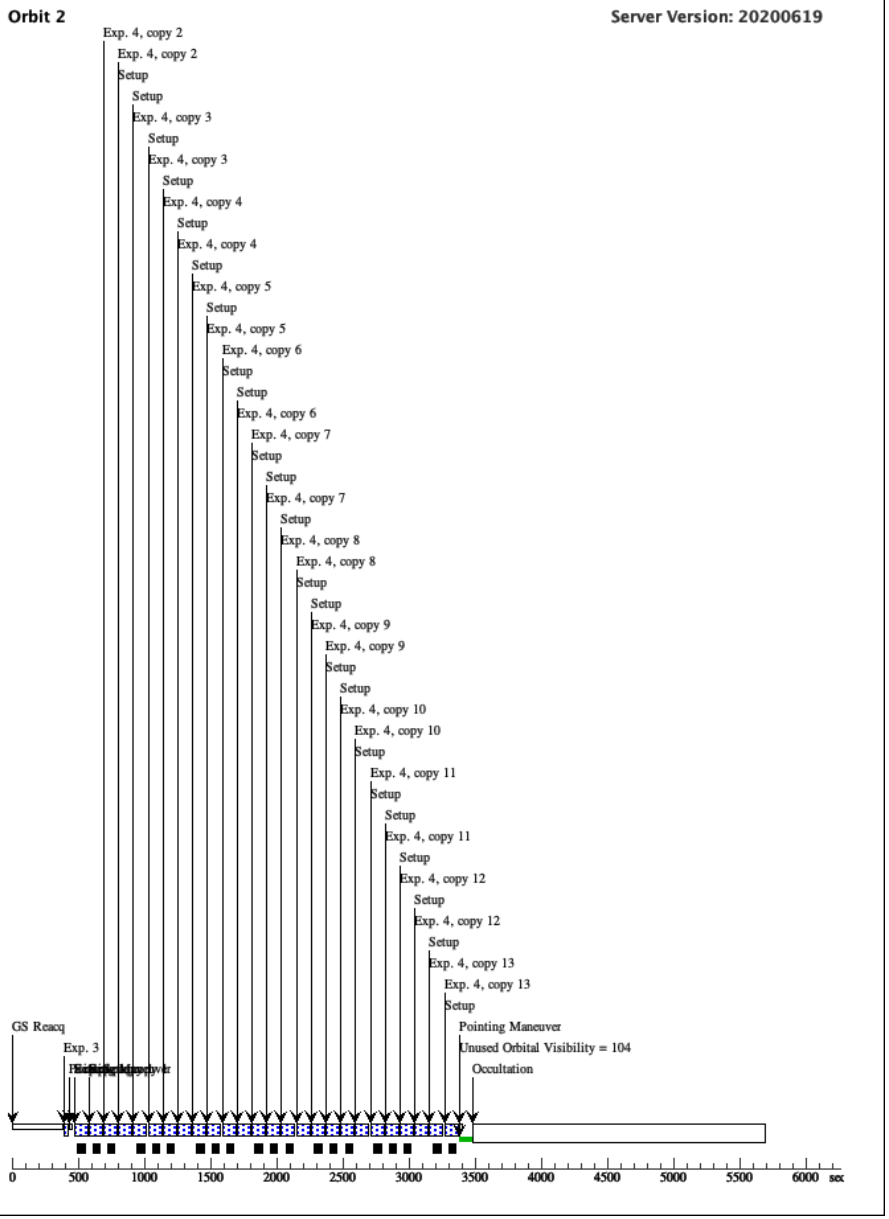
	4	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 3-4 Non-Int in planet b transit 2/5 (02)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[2]***
	5	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 5-6 Non-Int in planet b transit 2/5 (02)	1.706054 Secs (1.706 Secs) *[==>]*	***[3]***

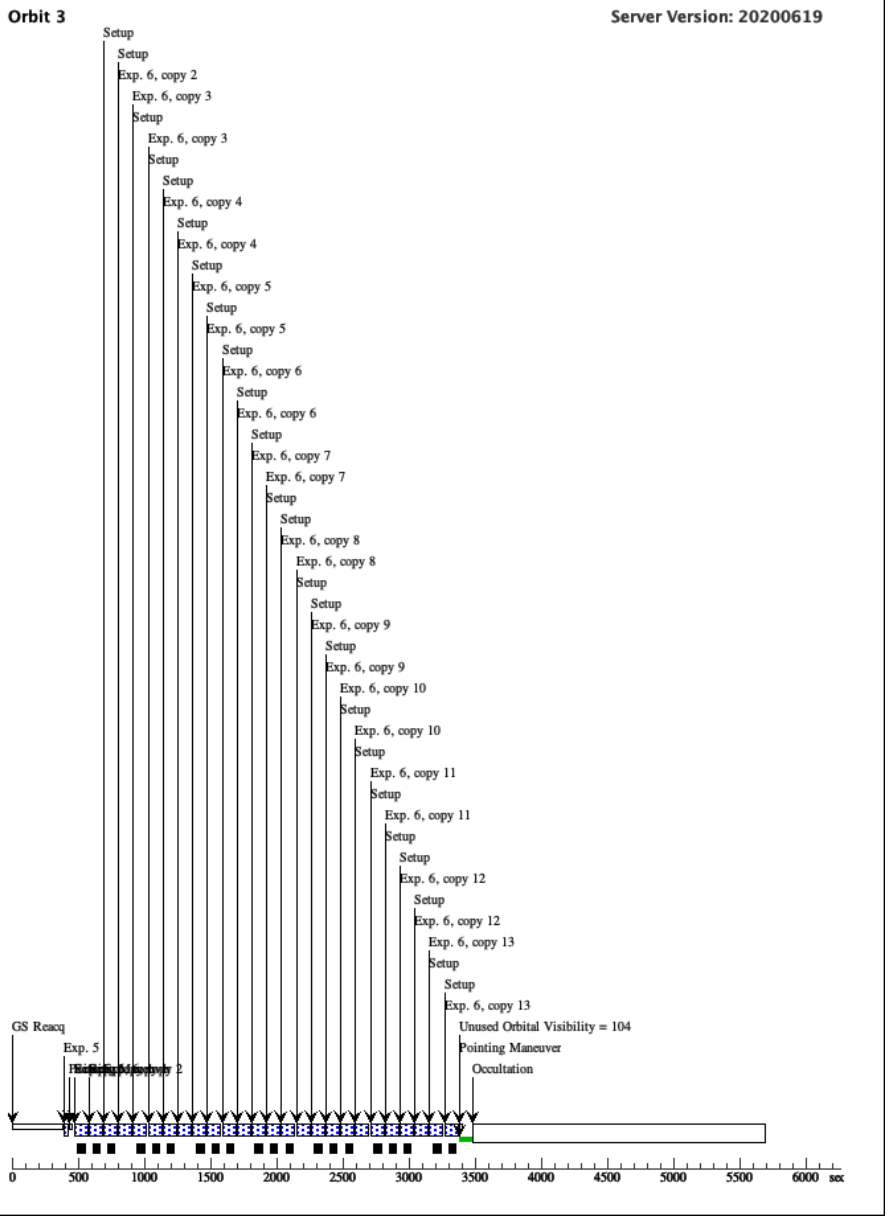
	6	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 5-6 Non-Int in planet b transit 2/5 (02)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[3]***
	7	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 7-8 Non-Int in planet b transit 2/5 (02)	1.706054 Secs (1.706 Secs) *[==>]*	***[4]***

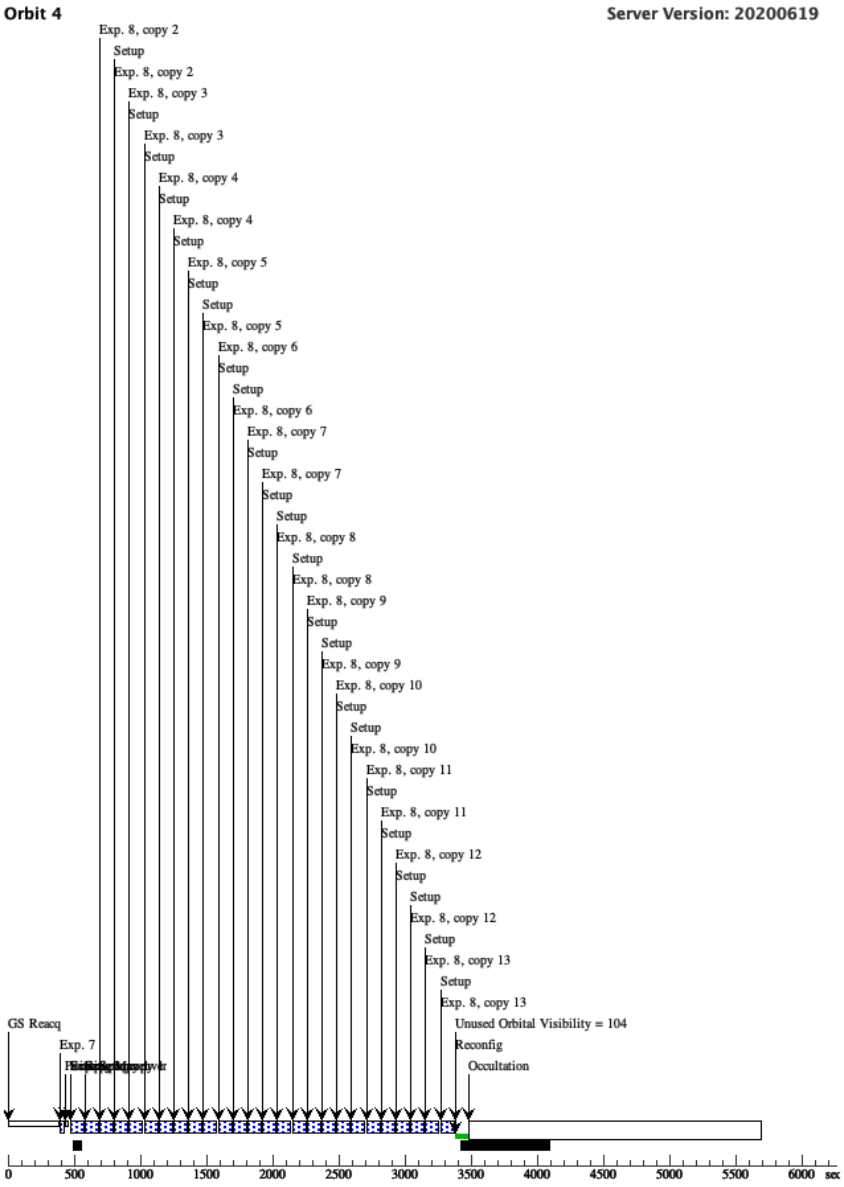
	8	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 7-8 Non-Int in planet b transit 2/5 (02)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20200619
Exp. 4, copy 2
Exp. 4, copy 2
Setup
Setup
Exp. 4, copy 3
Setup
Exp. 4, copy 3
Setup
Exp. 4, copy 4
Setup
Exp. 4, copy 4
Setup
Exp. 4, copy 5
Setup
Exp. 4, copy 5
Exp. 4, copy 6
Setup
Setup
Exp. 4, copy 6
Exp. 4, copy 7
Setup
Setup
Exp. 4, copy 7
Setup
Exp. 4, copy 8
Exp. 4, copy 8
Setup
Setup
Exp. 4, copy 9
Exp. 4, copy 9
Setup
Setup
Exp. 4, copy 10
Exp. 4, copy 10
Setup
Exp. 4, copy 11
Setup
Setup
Exp. 4, copy 11
Setup
Exp. 4, copy 12
Setup
Exp. 4, copy 12
Setup
Exp. 4, copy 13
Exp. 4, copy 13
Setup
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 3
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20200619
Setup
Exp. 6, copy 2
Exp. 6, copy 3
Exp. 6, copy 4
Exp. 6, copy 5
Exp. 6, copy 6
Exp. 6, copy 7
Exp. 6, copy 8
Exp. 6, copy 9
Exp. 6, copy 10
Exp. 6, copy 11
Exp. 6, copy 12
Exp. 6, copy 13
GS Reacq
Exp. 5
Unused Orbital Visibility = 104
Pointing Maneuver
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20200619
Exp. 8, copy 2
Setup
Exp. 8, copy 2
Exp. 8, copy 3
Setup
Exp. 8, copy 3
Setup
Exp. 8, copy 4
Setup
Exp. 8, copy 4
Setup
Exp. 8, copy 5
Setup
Setup
Exp. 8, copy 5
Exp. 8, copy 6
Setup
Setup
Exp. 8, copy 6
Exp. 8, copy 7
Setup
Exp. 8, copy 7
Setup
Setup
Exp. 8, copy 8
Setup
Exp. 8, copy 8
Exp. 8, copy 9
Setup
Setup
Exp. 8, copy 9
Exp. 8, copy 10
Setup
Setup
Exp. 8, copy 10
Exp. 8, copy 11
Setup
Exp. 8, copy 11
Setup
Exp. 8, copy 12
Setup
Setup
Exp. 8, copy 12
Setup
Exp. 8, copy 13
Setup
Exp. 8, copy 13
Unused Orbital Visibility = 104
Reconfig
Occultation
GS Reacq
Exp. 7
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15856, planet b transit 3/5 (03), completed Thu Nov 12 19:03:36 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: Period 2.2531427 D AND ZERO-PHASE HJD2458366.1701

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	L-98-59	RA: 08 18 7.8865 (124.5328604d) Dec: -68 18 52.08 (-68.31447d) Equinox: J2000	Proper Motion RA: 0.017097678098934456 sec of time/yr Proper Motion Dec: -0.34046999996917293 arcsec/yr Epoch of Position: 2015.5	V=11.685	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANET, EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

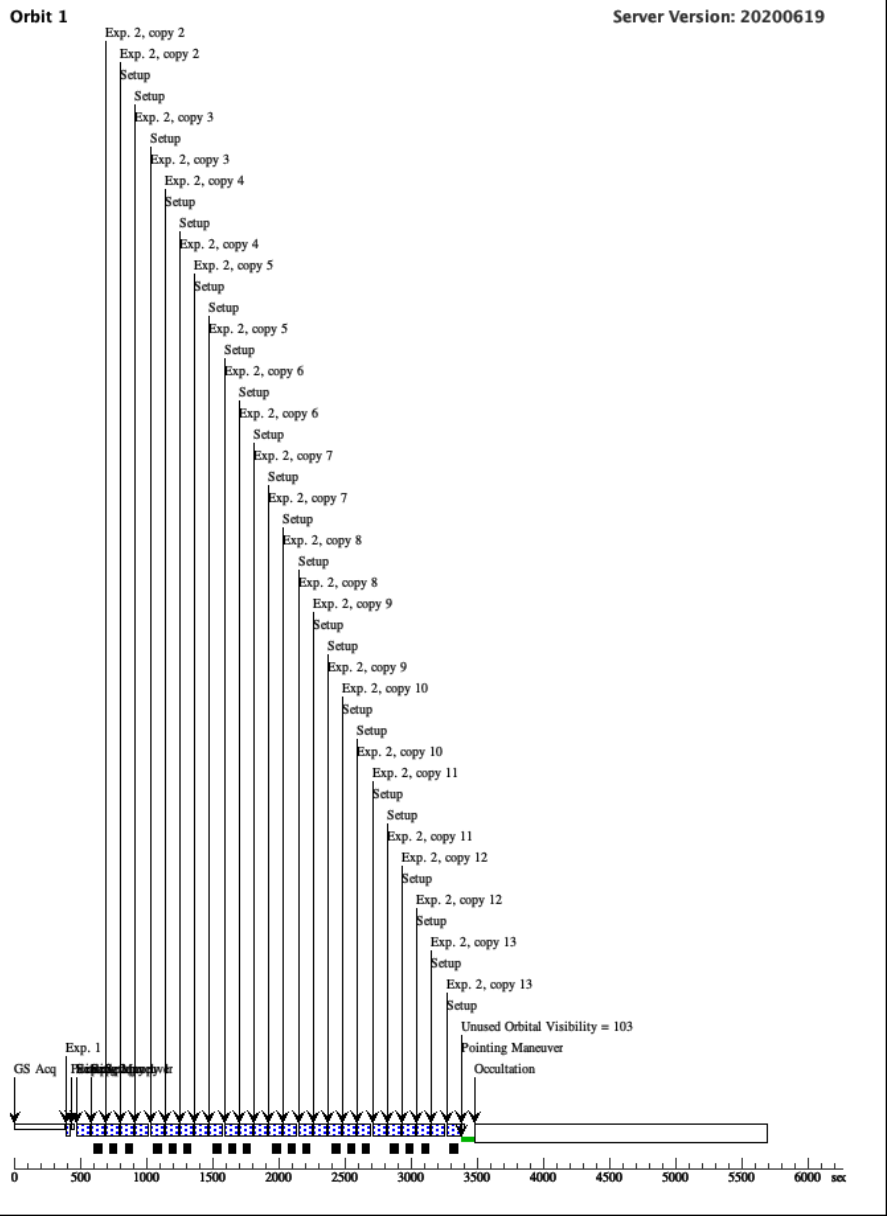
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID	PHASE 0.93034350 3921 TO 0.93650779 561	Sequence 1-2 Non-Int in planet b transit 3/5 (03)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[1]***
2		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 1-2 Non-Int in planet b transit 3/5 (03)	69.61678 Secs X 13 (1810.036 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	 ***[1]***
3		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 3-4 Non-Int in planet b transit 3/5 (03)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[2]***

	4	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 3-4 Non-Int in planet b transit 3/5 (03)	69.61678 Secs X 13 (1810.036 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[2]***
	5	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 5-6 Non-Int in planet b transit 3/5 (03)	1.706054 Secs (1.706 Secs) *[==>]*	***[3]***

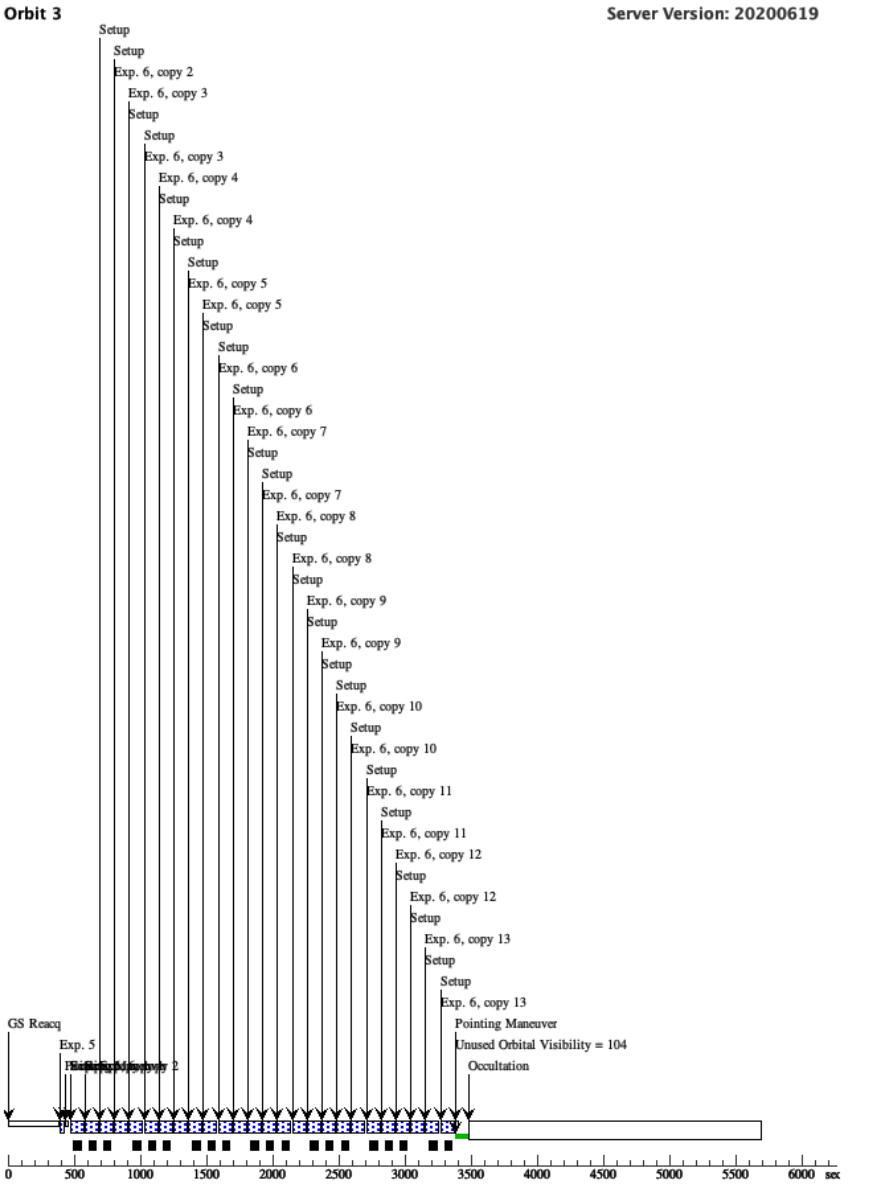
	6	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 5-6 Non-Int in planet b transit 3/5 (03)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[3]***
	7	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 7-8 Non-Int in planet b transit 3/5 (03)	1.706054 Secs (1.706 Secs) *[==>]*	***[4]***

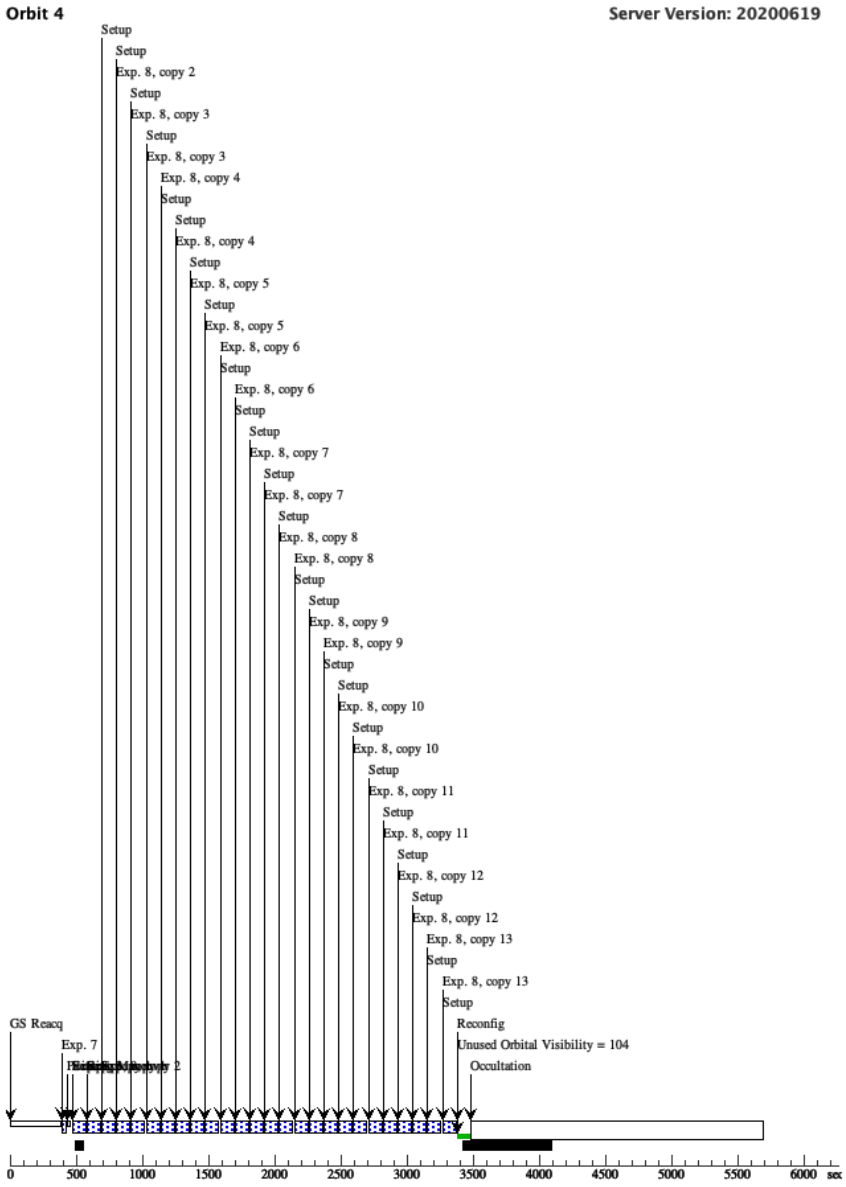
	8	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 7-8 Non-Int in planet b transit 3/5 (03)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20200619
Exp. 4, copy 2
Setup
Exp. 4, copy 2
Setup
Exp. 4, copy 3
Exp. 4, copy 3
Setup
Exp. 4, copy 4
Setup
Setup
Exp. 4, copy 4
Exp. 4, copy 5
Setup
Exp. 4, copy 5
Setup
Setup
Exp. 4, copy 6
Exp. 4, copy 6
Setup
Setup
Exp. 4, copy 7
Setup
Exp. 4, copy 7
Exp. 4, copy 8
Setup
Setup
Exp. 4, copy 8
Exp. 4, copy 9
Setup
Exp. 4, copy 9
Setup
Exp. 4, copy 10
Setup
Exp. 4, copy 10
Setup
Exp. 4, copy 11
Setup
Setup
Exp. 4, copy 11
Setup
Exp. 4, copy 12
Exp. 4, copy 12
Setup
Setup
Exp. 4, copy 13
Setup
Exp. 4, copy 13
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 3
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20200619
Setup
Setup
Exp. 6, copy 2
Exp. 6, copy 3
Setup
Setup
Exp. 6, copy 3
Exp. 6, copy 4
Setup
Exp. 6, copy 4
Setup
Setup
Exp. 6, copy 5
Exp. 6, copy 5
Setup
Setup
Exp. 6, copy 6
Setup
Exp. 6, copy 6
Exp. 6, copy 7
Setup
Setup
Exp. 6, copy 7
Exp. 6, copy 8
Setup
Exp. 6, copy 8
Setup
Exp. 6, copy 9
Setup
Exp. 6, copy 9
Setup
Setup
Exp. 6, copy 10
Setup
Exp. 6, copy 10
Setup
Exp. 6, copy 11
Setup
Exp. 6, copy 11
Exp. 6, copy 12
Setup
Exp. 6, copy 12
Setup
Exp. 6, copy 13
Setup
Setup
Exp. 6, copy 13
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 5
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20200619
Setup
Exp. 8, copy 2
Exp. 8, copy 3
Exp. 8, copy 4
Exp. 8, copy 5
Exp. 8, copy 6
Exp. 8, copy 7
Exp. 8, copy 8
Exp. 8, copy 9
Exp. 8, copy 10
Exp. 8, copy 11
Exp. 8, copy 12
Exp. 8, copy 13
GS Reacq
Exp. 7
Reconfig
Unused Orbital Visibility = 104
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15856, planet b transit 4/5 (04), implementation Thu Nov 12 19:03:36 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: Period 2.2531427 D AND ZERO-PHASE HJD2458366.1701

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	L-98-59	RA: 08 18 7.8865 (124.5328604d) Dec: -68 18 52.08 (-68.31447d) Equinox: J2000	Proper Motion RA: 0.017097678098934456 sec of time/yr Proper Motion Dec: -0.34046999996917293 arcsec/yr Epoch of Position: 2015.5	V=11.685	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANET, EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

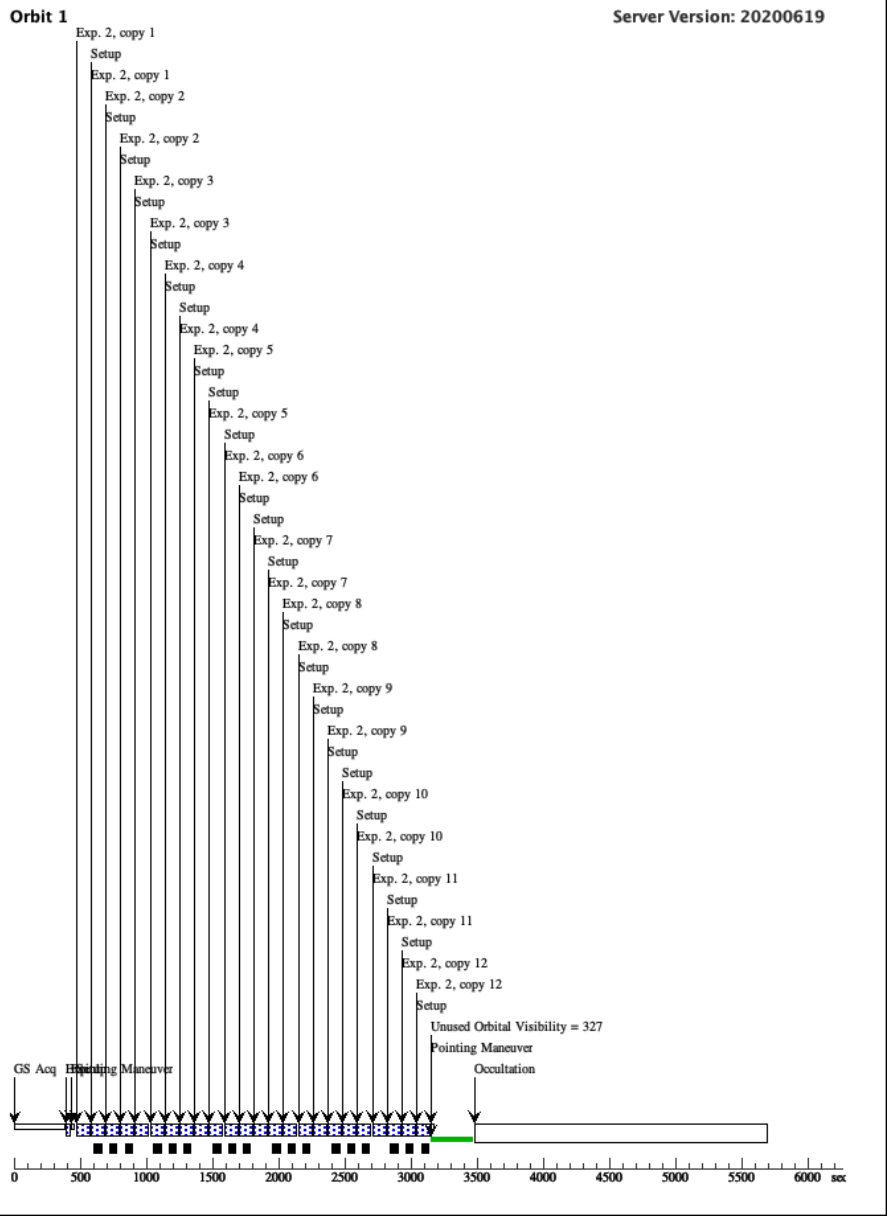
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID	PHASE 0.93034350 3921 TO 0.93650779 561	Sequence 1-2 Non-Int in planet b transit 4/5 (04)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[1]***
2		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 1-2 Non-Int in planet b transit 4/5 (04)	69.61678 Secs X 12 (1670.803 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]*	 ***[1]***
3		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 3-4 Non-Int in planet b transit 4/5 (04)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[2]***

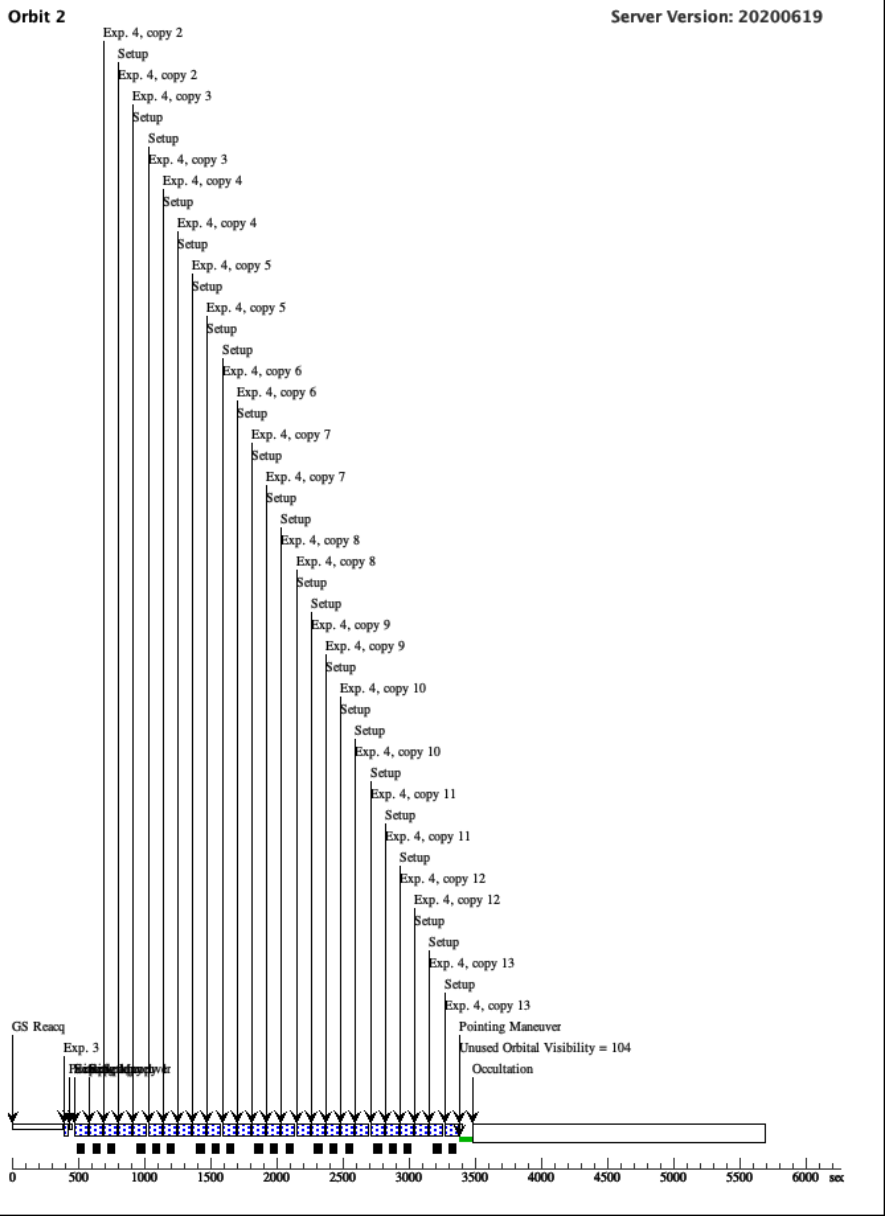
	4	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 3-4 Non-Int in planet b transit 4/5 (04)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[2]***
	5	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 5-6 Non-Int in planet b transit 4/5 (04)	1.706054 Secs (1.706 Secs) *[==>]*	***[3]***

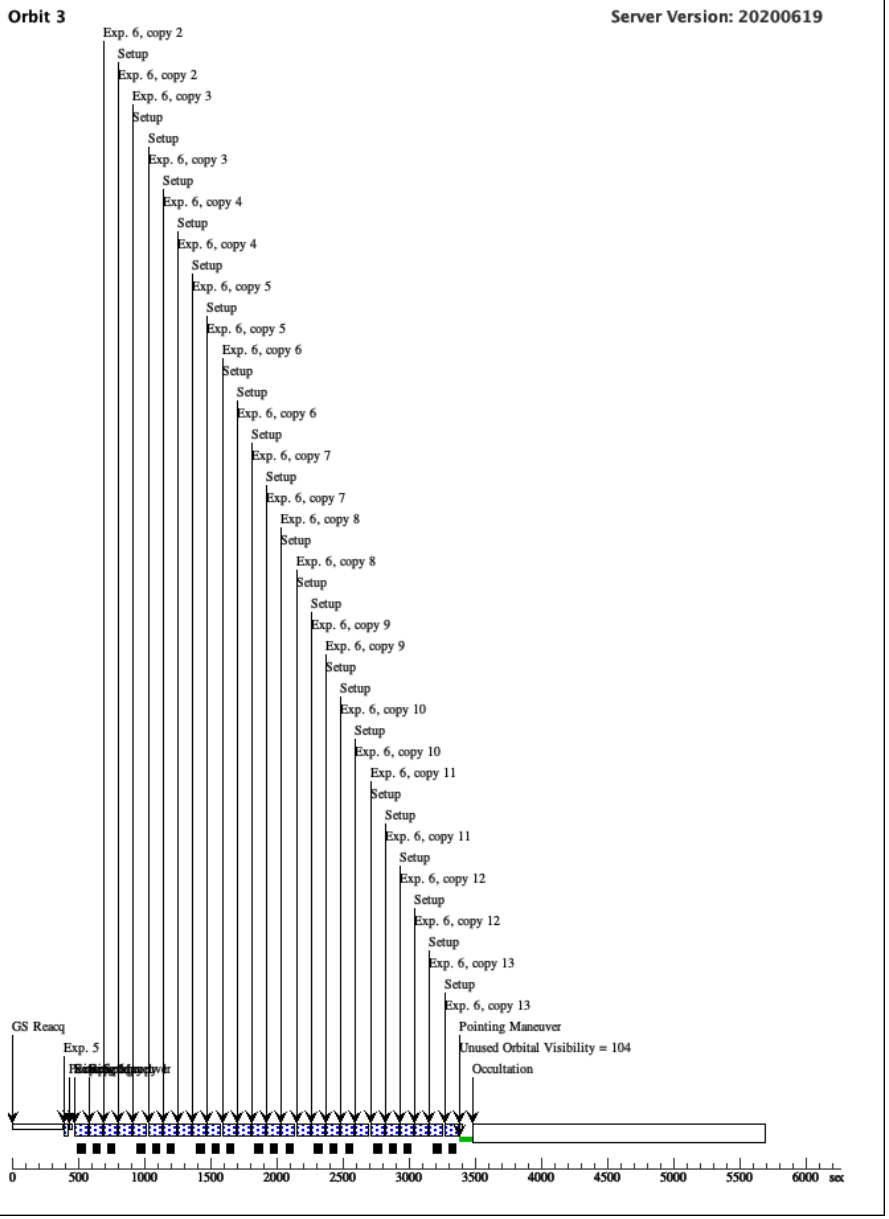
	6	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 5-6 Non-Int in planet b transit 4/5 (04)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[3]***
	7	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 7-8 Non-Int in planet b transit 4/5 (04)	1.706054 Secs (1.706 Secs) *[==>]*	***[4]***

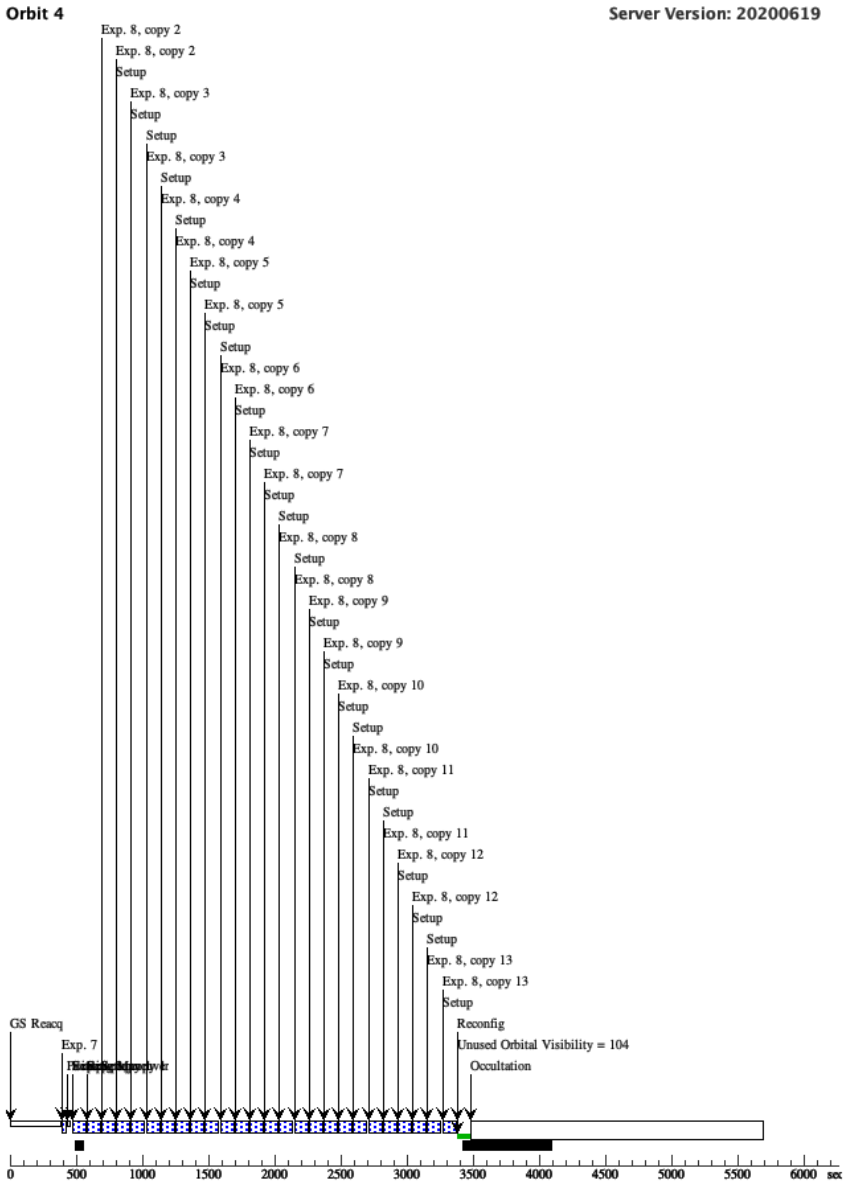
	8	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 7-8 Non-Int in planet b transit 4/5 (04)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20200619
Exp. 4, copy 2
Setup
Exp. 4, copy 2
Exp. 4, copy 3
Setup
Setup
Exp. 4, copy 3
Exp. 4, copy 4
Setup
Exp. 4, copy 4
Setup
Exp. 4, copy 5
Setup
Exp. 4, copy 5
Setup
Setup
Exp. 4, copy 6
Exp. 4, copy 6
Setup
Exp. 4, copy 7
Setup
Exp. 4, copy 7
Setup
Setup
Exp. 4, copy 8
Exp. 4, copy 8
Setup
Setup
Exp. 4, copy 9
Exp. 4, copy 9
Setup
Exp. 4, copy 10
Setup
Setup
Exp. 4, copy 10
Setup
Exp. 4, copy 11
Setup
Exp. 4, copy 11
Setup
Exp. 4, copy 12
Exp. 4, copy 12
Setup
Setup
Exp. 4, copy 13
Setup
Exp. 4, copy 13
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 3
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20200619
Exp. 6, copy 2
Setup
Exp. 6, copy 2
Exp. 6, copy 3
Setup
Setup
Exp. 6, copy 3
Setup
Exp. 6, copy 4
Setup
Exp. 6, copy 4
Setup
Exp. 6, copy 5
Setup
Exp. 6, copy 5
Exp. 6, copy 6
Setup
Setup
Exp. 6, copy 6
Setup
Exp. 6, copy 7
Setup
Exp. 6, copy 7
Exp. 6, copy 8
Setup
Exp. 6, copy 8
Setup
Setup
Exp. 6, copy 9
Exp. 6, copy 9
Setup
Setup
Exp. 6, copy 10
Setup
Exp. 6, copy 10
Exp. 6, copy 11
Setup
Setup
Exp. 6, copy 11
Setup
Exp. 6, copy 12
Setup
Exp. 6, copy 12
Setup
Exp. 6, copy 13
Setup
Exp. 6, copy 13
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 5
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20200619
Exp. 8, copy 2
Exp. 8, copy 2
Setup
Exp. 8, copy 3
Setup
Setup
Exp. 8, copy 3
Setup
Exp. 8, copy 4
Setup
Exp. 8, copy 4
Exp. 8, copy 5
Setup
Exp. 8, copy 5
Setup
Setup
Exp. 8, copy 6
Exp. 8, copy 6
Setup
Exp. 8, copy 7
Setup
Exp. 8, copy 7
Setup
Setup
Exp. 8, copy 8
Setup
Exp. 8, copy 8
Exp. 8, copy 9
Setup
Exp. 8, copy 9
Setup
Exp. 8, copy 10
Setup
Setup
Exp. 8, copy 10
Exp. 8, copy 11
Setup
Setup
Exp. 8, copy 11
Exp. 8, copy 12
Setup
Exp. 8, copy 12
Setup
Setup
Exp. 8, copy 13
Exp. 8, copy 13
Setup
Reconfig
GS Reacq
Exp. 7
Unused Orbital Visibility = 104
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15856, planet b transit 5/5 (05), scheduling Thu Nov 12 19:03:36 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: Period 2.2531427 D AND ZERO-PHASE HJD2458366.1701

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	L-98-59	RA: 08 18 7.8865 (124.5328604d) Dec: -68 18 52.08 (-68.31447d) Equinox: J2000	Proper Motion RA: 0.017097678098934456 sec of time/yr Proper Motion Dec: -0.34046999996917293 arcsec/yr Epoch of Position: 2015.5	V=11.685	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANET, EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

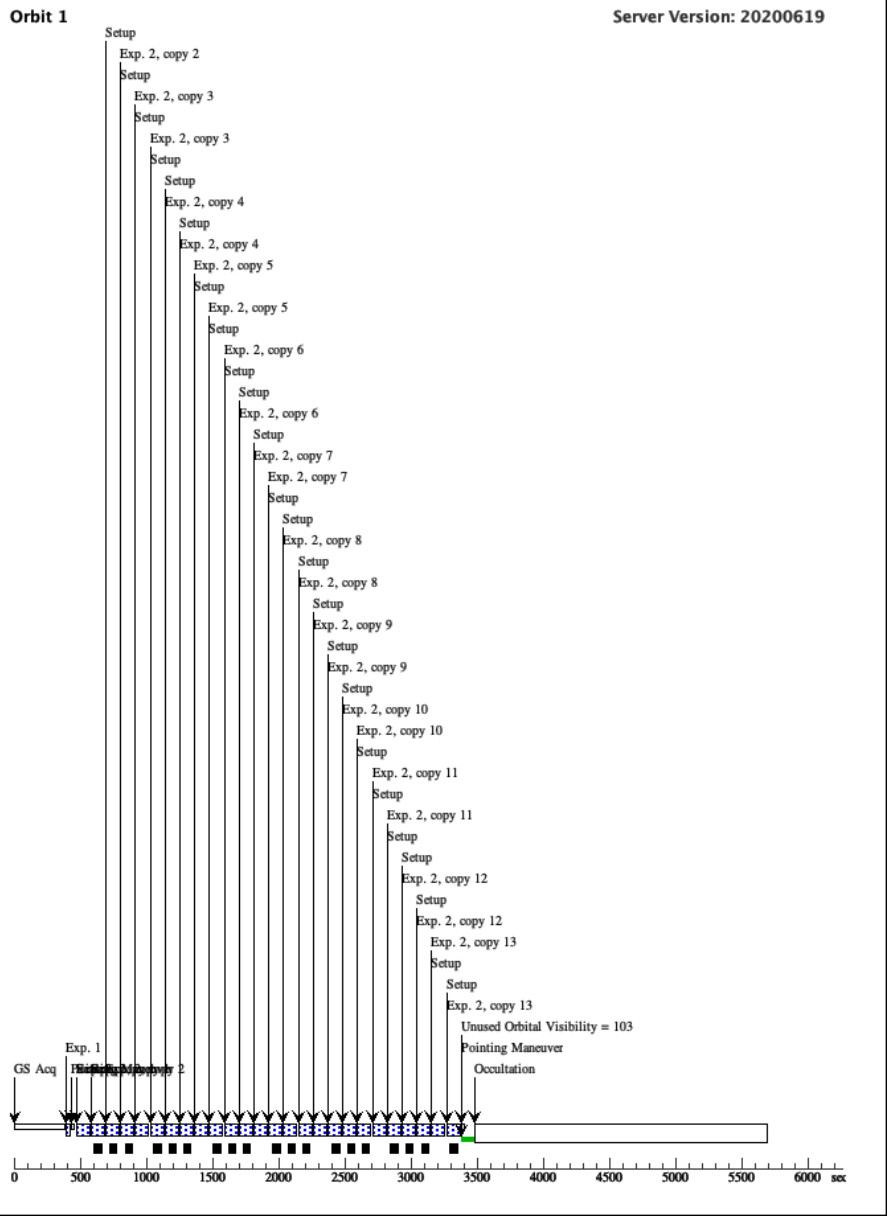
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID	PHASE 0.93034350 3921 TO 0.93650779 561	Sequence 1-2 Non-Int in planet b transit 5/5 (05)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[1]***
2		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 1-2 Non-Int in planet b transit 5/5 (05)	69.61678 Secs X 13 (1810.036 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	 ***[1]***
3		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 3-4 Non-Int in planet b transit 5/5 (05)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[2]***

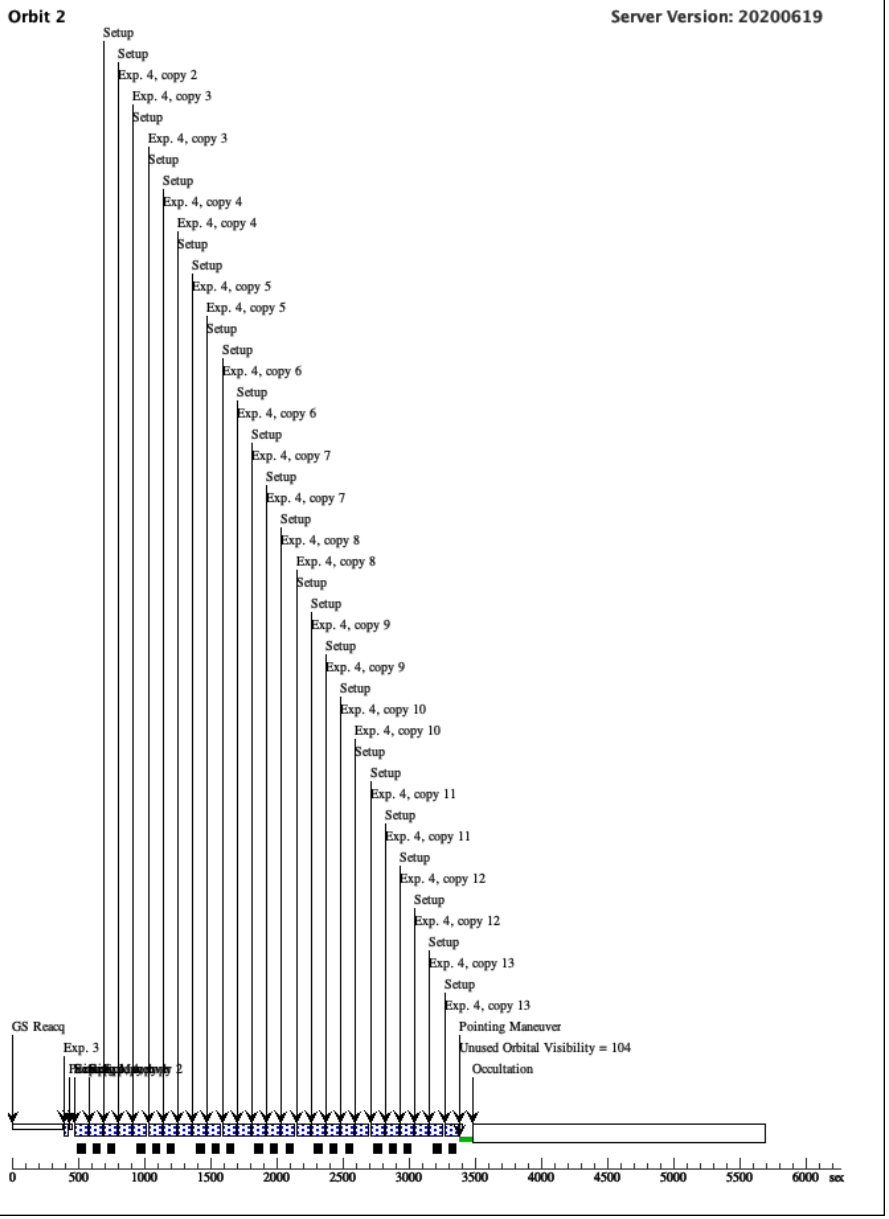
	4	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 3-4 Non-Int in planet b transit 5/5 (05)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[2]***
	5	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 5-6 Non-Int in planet b transit 5/5 (05)	1.706054 Secs (1.706 Secs) *[==>]*	***[3]***

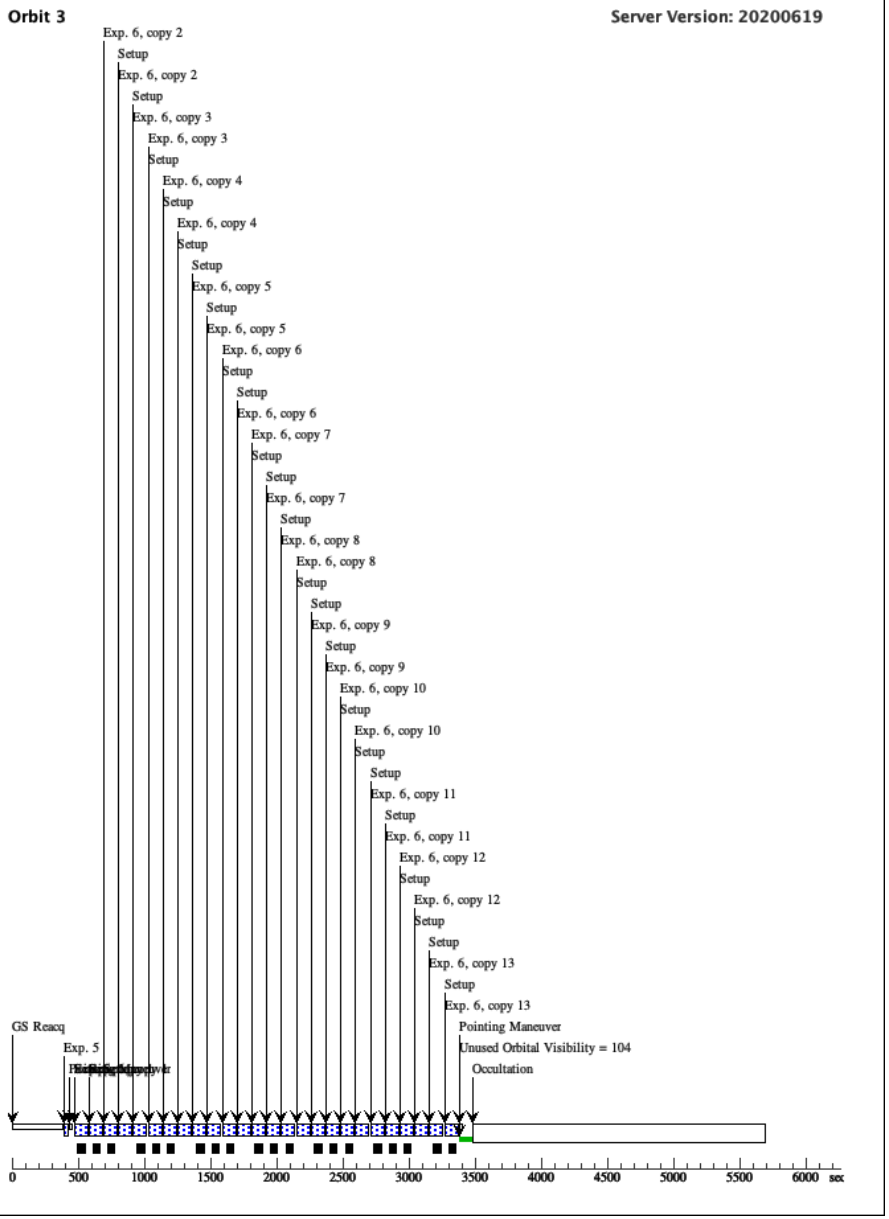
	6	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 5-6 Non-Int in planet b transit 5/5 (05)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[3]***
	7	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 7-8 Non-Int in planet b transit 5/5 (05)	1.706054 Secs (1.706 Secs) *[==>]*	***[4]***

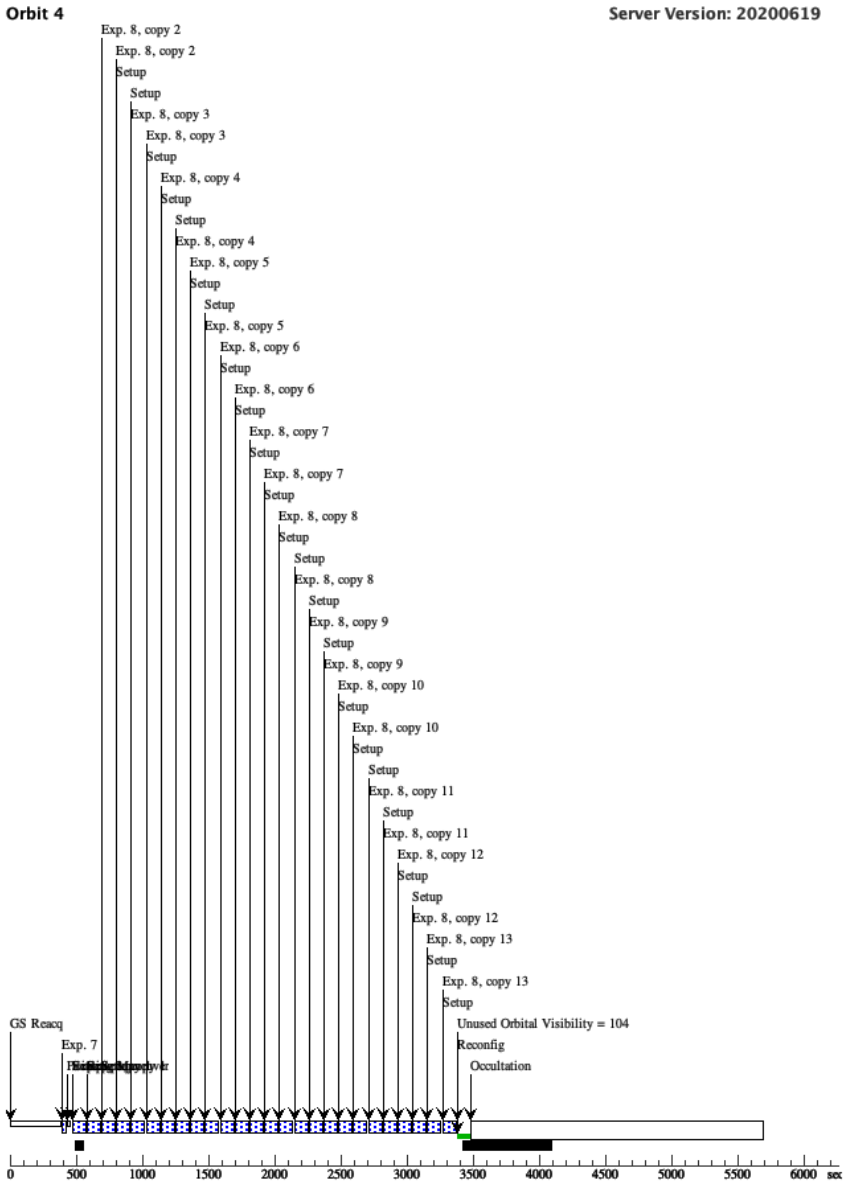
	8	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 7-8 Non-Int in planet b transit 5/5 (05)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20200619
Setup
Exp. 4, copy 2
Exp. 4, copy 3
Exp. 4, copy 4
Exp. 4, copy 5
Exp. 4, copy 6
Exp. 4, copy 7
Exp. 4, copy 8
Exp. 4, copy 9
Exp. 4, copy 10
Exp. 4, copy 11
Exp. 4, copy 12
Exp. 4, copy 13
GS Reacq
Exp. 3
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20200619
Exp. 6, copy 2
Setup
Exp. 6, copy 2
Setup
Exp. 6, copy 3
Exp. 6, copy 3
Setup
Exp. 6, copy 4
Setup
Exp. 6, copy 4
Setup
Setup
Exp. 6, copy 5
Setup
Exp. 6, copy 5
Exp. 6, copy 6
Setup
Setup
Exp. 6, copy 6
Exp. 6, copy 7
Setup
Setup
Exp. 6, copy 7
Setup
Exp. 6, copy 8
Exp. 6, copy 8
Setup
Setup
Exp. 6, copy 9
Setup
Exp. 6, copy 9
Exp. 6, copy 10
Setup
Exp. 6, copy 10
Setup
Setup
Exp. 6, copy 11
Setup
Exp. 6, copy 11
Exp. 6, copy 12
Setup
Exp. 6, copy 12
Setup
Setup
Exp. 6, copy 13
Setup
Exp. 6, copy 13
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 5
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20200619
Exp. 8, copy 2
Exp. 8, copy 2
Setup
Setup
Exp. 8, copy 3
Exp. 8, copy 3
Setup
Exp. 8, copy 4
Setup
Setup
Exp. 8, copy 4
Exp. 8, copy 5
Setup
Setup
Exp. 8, copy 5
Exp. 8, copy 6
Setup
Exp. 8, copy 6
Setup
Exp. 8, copy 7
Setup
Exp. 8, copy 7
Setup
Exp. 8, copy 8
Setup
Setup
Exp. 8, copy 8
Setup
Exp. 8, copy 9
Setup
Exp. 8, copy 9
Exp. 8, copy 10
Setup
Exp. 8, copy 10
Setup
Setup
Exp. 8, copy 11
Setup
Exp. 8, copy 11
Exp. 8, copy 12
Setup
Setup
Exp. 8, copy 12
Exp. 8, copy 13
Setup
Exp. 8, copy 13
Setup
Unused Orbital Visibility = 104
Reconfig
Occultation
GS Reacq
Exp. 7
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15856, planet c transit 1/1 (06), completed Thu Nov 12 19:03:37 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: Period 3.6906219 D AND ZERO-PHASE HJD2458367.2755

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	L-98-59	RA: 08 18 7.8865 (124.5328604d) Dec: -68 18 52.08 (-68.31447d) Equinox: J2000	Proper Motion RA: 0.017097678098934456 sec of time/yr Proper Motion Dec: -0.34046999996917293 arcsec/yr Epoch of Position: 2015.5	V=11.685	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANET, EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

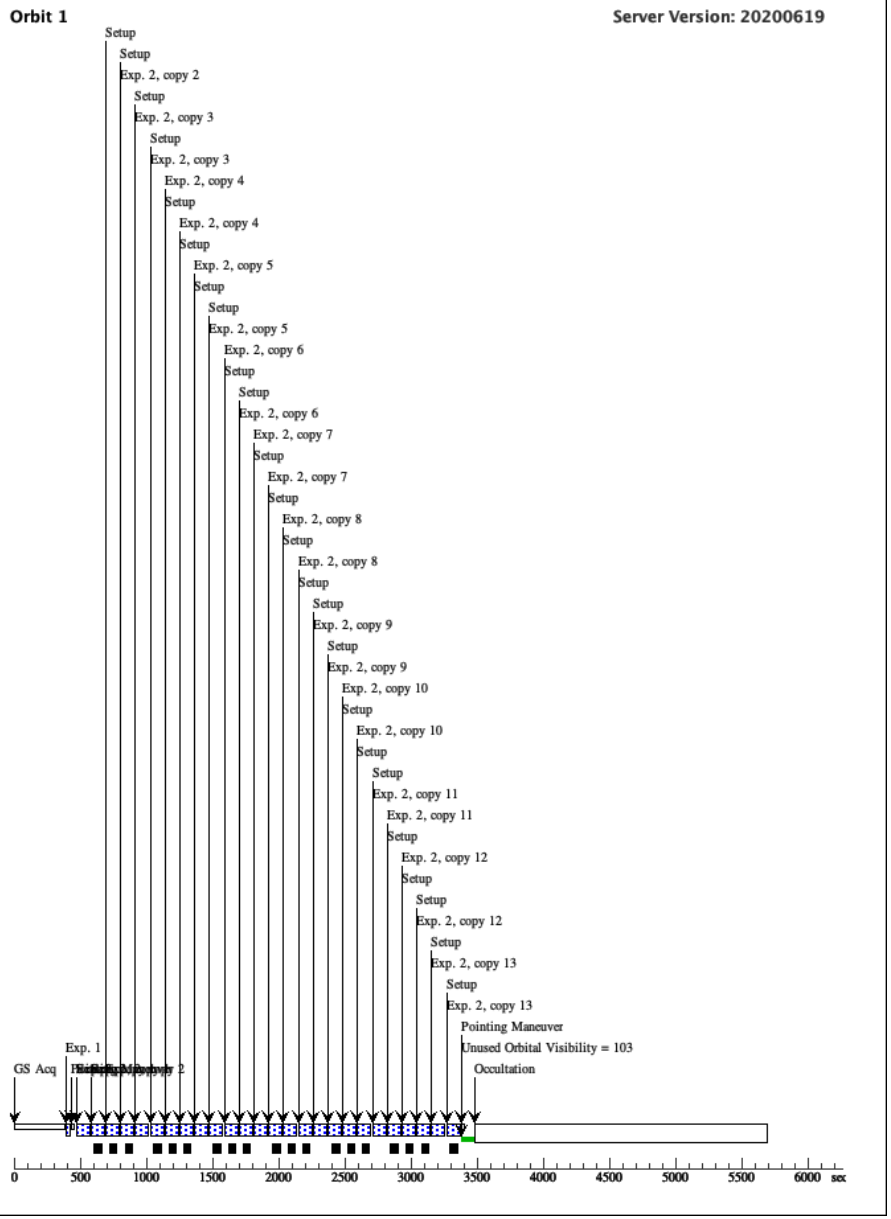
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID	PHASE 0.95747462 5598 TO 0.96123793 3067	Sequence 1-2 Non-Int in planet c transit 1/1 (06)	1.706054 Secs (1.706 Secs) *[==>]*	***[1]***
2		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 1-2 Non-Int in planet c transit 1/1 (06)	69.61678 Secs X 13 (1810.036 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[1]***
3		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 3-4 Non-Int in planet c transit 1/1 (06)	1.706054 Secs (1.706 Secs) *[==>]*	***[2]***

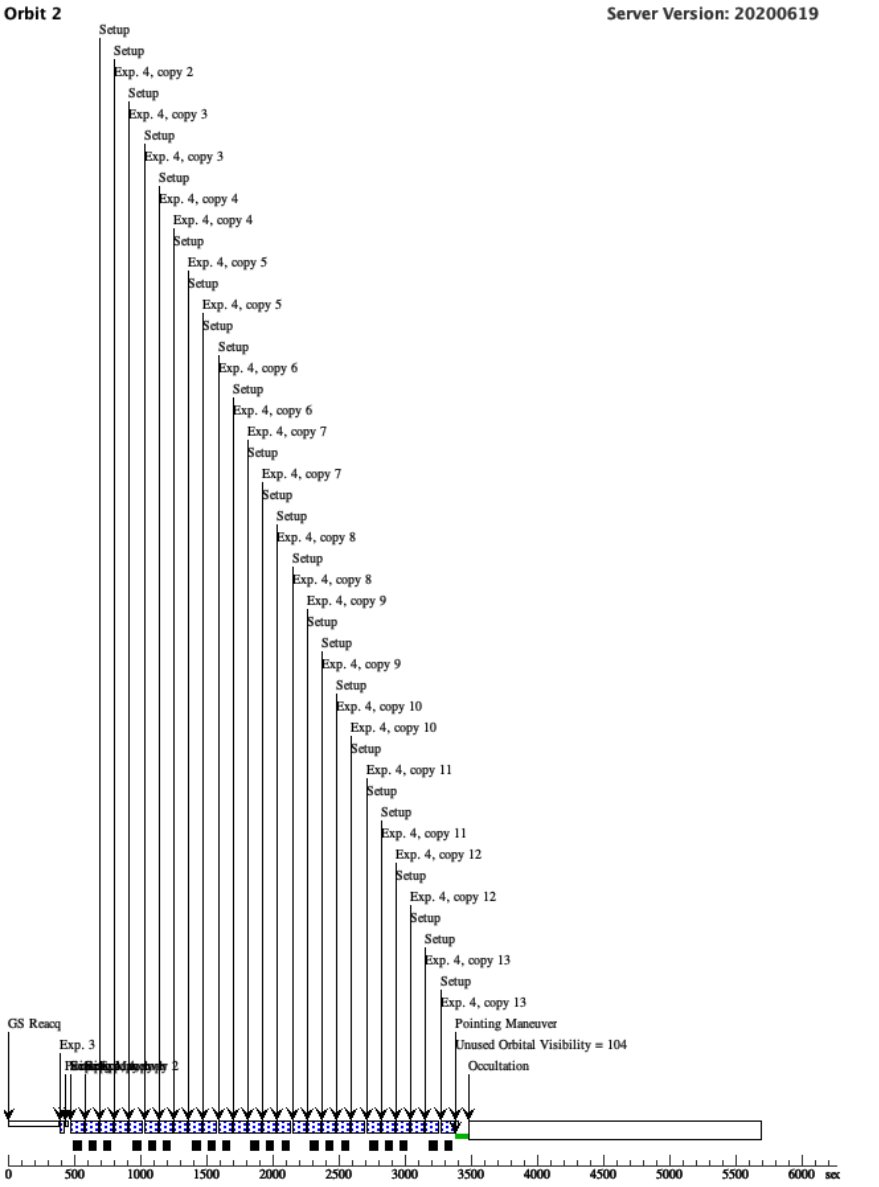
	4	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 3-4 Non-Int in planet c transit 1/1 (06)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[2]***
	5	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 5-6 Non-Int in planet c transit 1/1 (06)	1.706054 Secs (1.706 Secs) *[==>]*	***[3]***

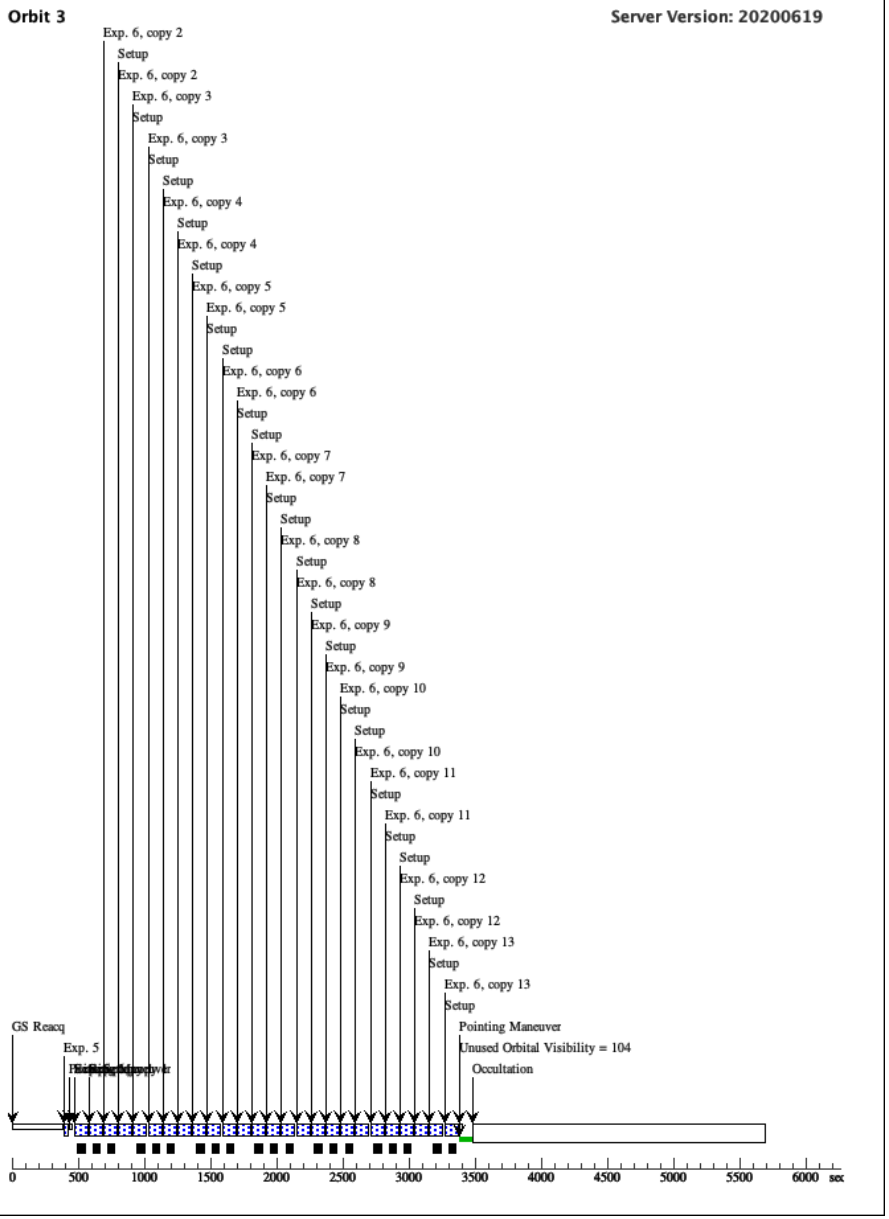
	6	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 5-6 Non-Int in planet c transit 1/1 (06)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[3]***
	7	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 7-8 Non-Int in planet c transit 1/1 (06)	1.706054 Secs (1.706 Secs) *[==>]*	***[4]***

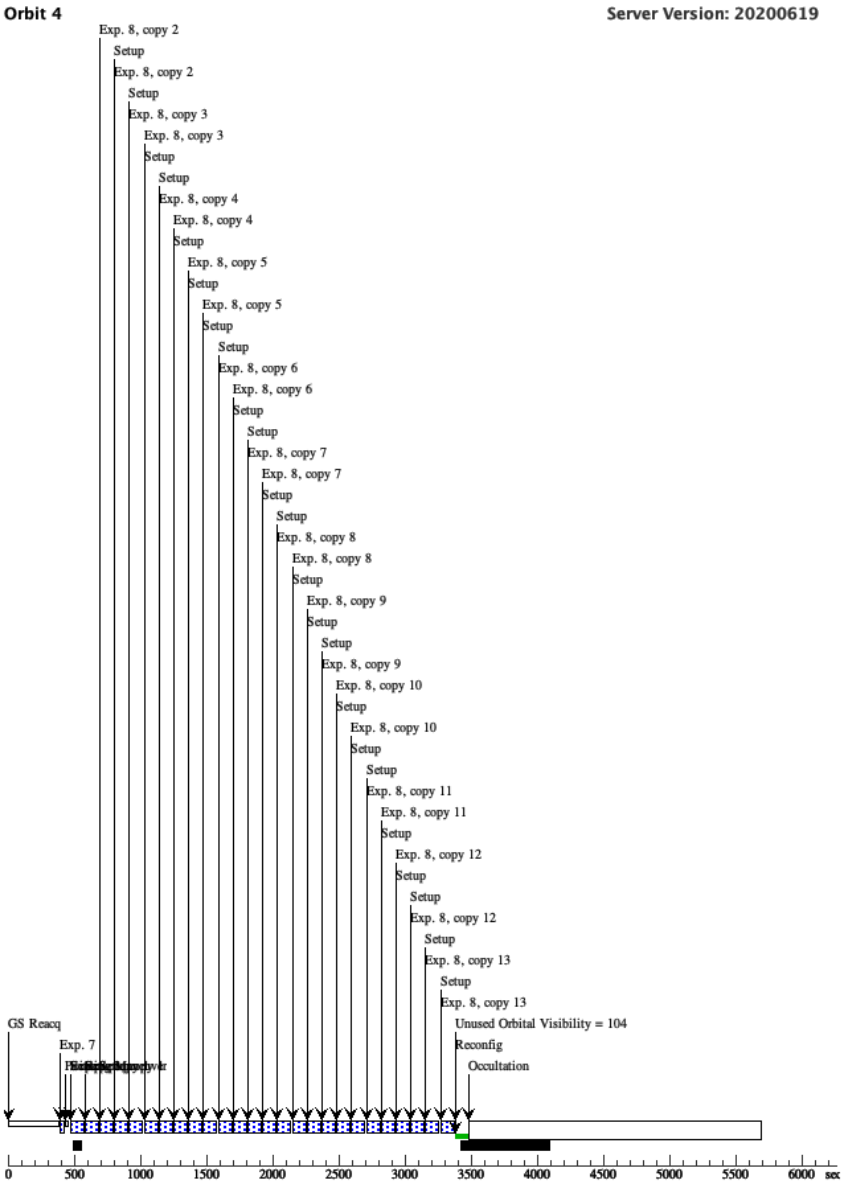
	8	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 7-8 Non-Int in planet c transit 1/1 (06)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20200619
Setup
Exp. 4, copy 2
Exp. 4, copy 3
Exp. 4, copy 4
Exp. 4, copy 5
Exp. 4, copy 6
Exp. 4, copy 7
Exp. 4, copy 8
Exp. 4, copy 9
Exp. 4, copy 10
Exp. 4, copy 11
Exp. 4, copy 12
Exp. 4, copy 13
GS Reacq
Exp. 3
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20200619
Exp. 6, copy 2
Setup
Exp. 6, copy 2
Exp. 6, copy 3
Setup
Exp. 6, copy 3
Setup
Setup
Exp. 6, copy 4
Setup
Exp. 6, copy 4
Setup
Exp. 6, copy 5
Exp. 6, copy 5
Setup
Setup
Exp. 6, copy 6
Exp. 6, copy 6
Setup
Setup
Exp. 6, copy 7
Exp. 6, copy 7
Setup
Setup
Exp. 6, copy 8
Setup
Exp. 6, copy 8
Setup
Exp. 6, copy 9
Setup
Exp. 6, copy 9
Exp. 6, copy 10
Setup
Setup
Exp. 6, copy 10
Exp. 6, copy 11
Setup
Exp. 6, copy 11
Setup
Setup
Exp. 6, copy 12
Setup
Exp. 6, copy 12
Exp. 6, copy 13
Setup
Exp. 6, copy 13
Setup
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 5
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20200619
Exp. 8, copy 2
Setup
Exp. 8, copy 2
Setup
Exp. 8, copy 3
Exp. 8, copy 3
Setup
Setup
Exp. 8, copy 4
Exp. 8, copy 4
Setup
Exp. 8, copy 5
Setup
Exp. 8, copy 5
Setup
Setup
Exp. 8, copy 6
Exp. 8, copy 6
Setup
Setup
Exp. 8, copy 7
Exp. 8, copy 7
Setup
Setup
Exp. 8, copy 8
Exp. 8, copy 8
Setup
Exp. 8, copy 9
Setup
Setup
Exp. 8, copy 9
Exp. 8, copy 10
Setup
Exp. 8, copy 10
Setup
Setup
Exp. 8, copy 11
Exp. 8, copy 11
Setup
Exp. 8, copy 12
Setup
Setup
Exp. 8, copy 12
Setup
Exp. 8, copy 13
Setup
Exp. 8, copy 13
Unused Orbital Visibility = 104
Reconfig
Occultation
GS Reacq
Exp. 7
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15856, planet d transit 1/1 (07), scheduling Thu Nov 12 19:03:37 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: Period 7.4508565 D AND ZERO-PHASE HJD2458362.7375

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	L-98-59	RA: 08 18 7.8865 (124.5328604d) Dec: -68 18 52.08 (-68.31447d) Equinox: J2000	Proper Motion RA: 0.017097678098934456 sec of time/yr Proper Motion Dec: -0.34046999996917293 arcsec/yr Epoch of Position: 2015.5	V=11.685	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANET, EXTRA-SOLAR PLANETARY SYSTEM]

Exposures

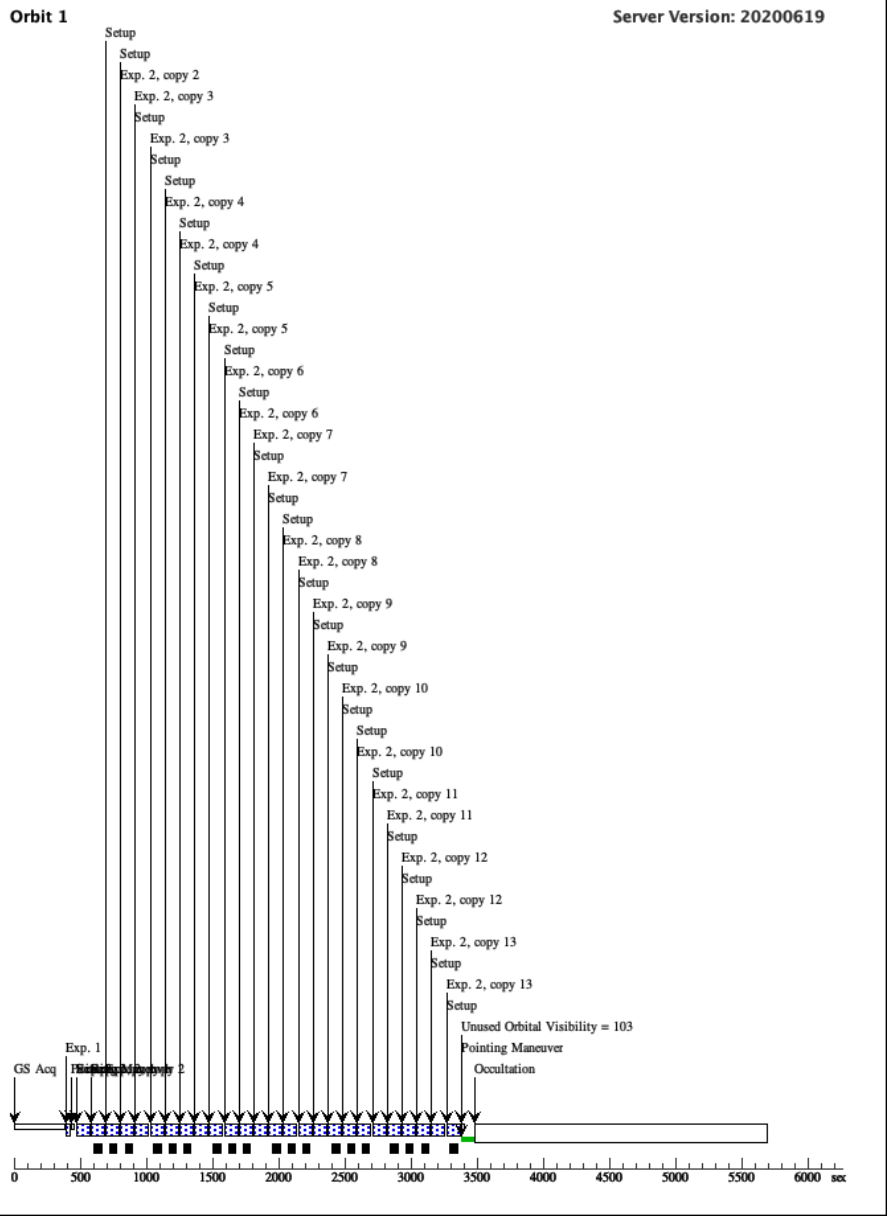
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID	PHASE 0.97916893 1521 TO 0.98056698 9808	Sequence 1-2 Non-Int in planet d transit 1/1 (07)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[1]***
2		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.4 96,90.0 Degrees,Round trip	Sequence 1-2 Non-Int in planet d transit 1/1 (07)	69.61678 Secs X 13 (1810.036 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	 ***[1]***
3		(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 3-4 Non-Int in planet d transit 1/1 (07)	1.706054 Secs (1.706 Secs) *[==>]*	 ***[2]***

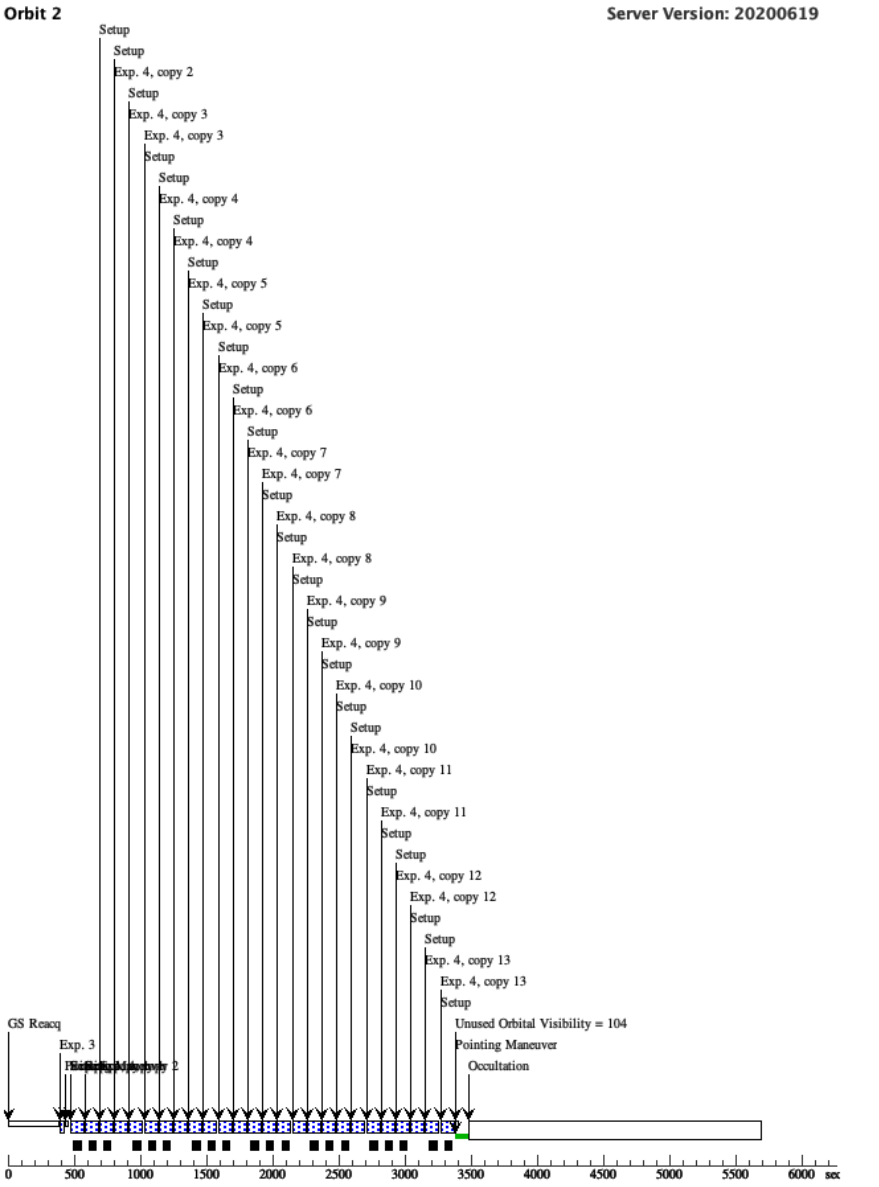
	4	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 3-4 Non-Int in planet d transit 1/1 (07)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[2]***
	5	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 5-6 Non-Int in planet d transit 1/1 (07)	1.706054 Secs (1.706 Secs) *[==>]*	***[3]***

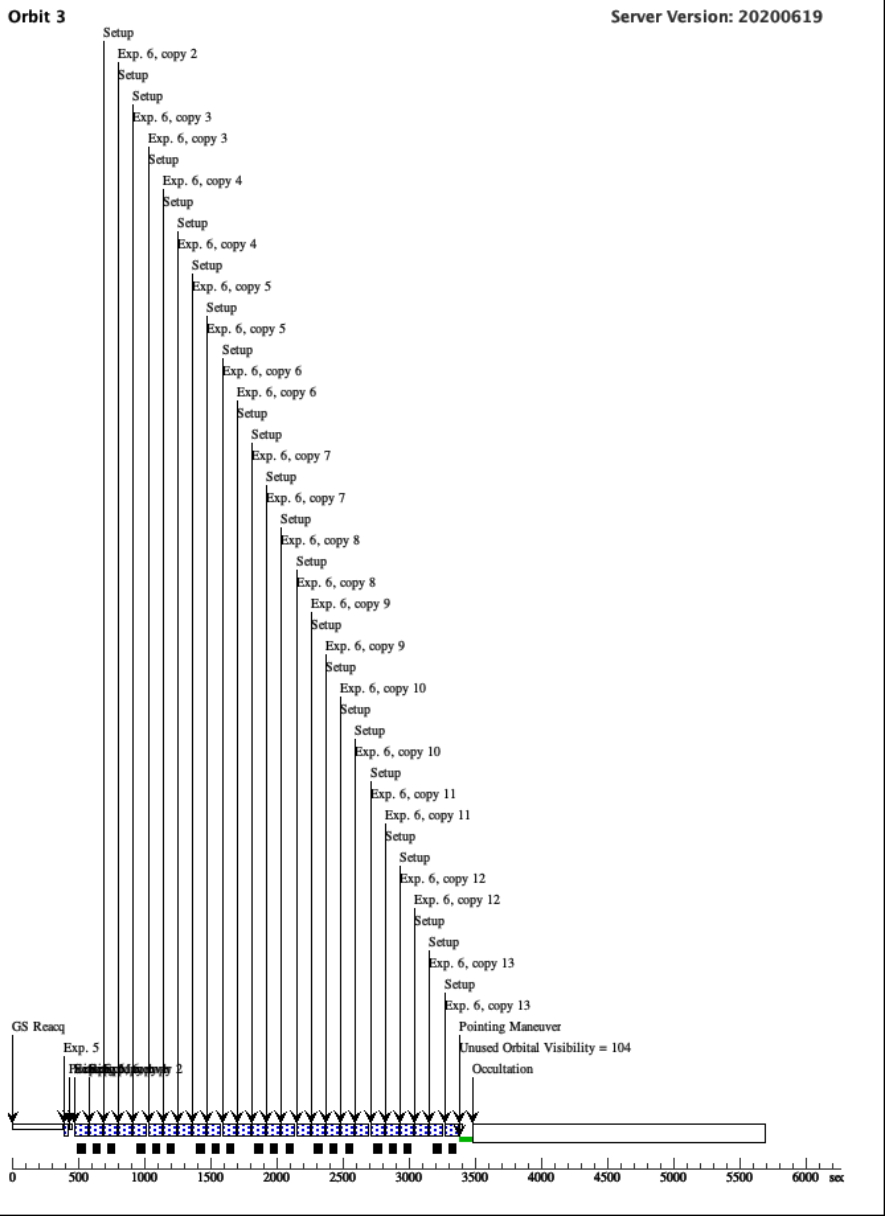
	6	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 5-6 Non-Int in planet d transit 1/1 (07)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[3]***
	7	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	F130N	NSAMP=2; SAMP-SEQ=RAPID		Sequence 7-8 Non-Int in planet d transit 1/1 (07)	1.706054 Secs (1.706 Secs) *[==>]*	***[4]***

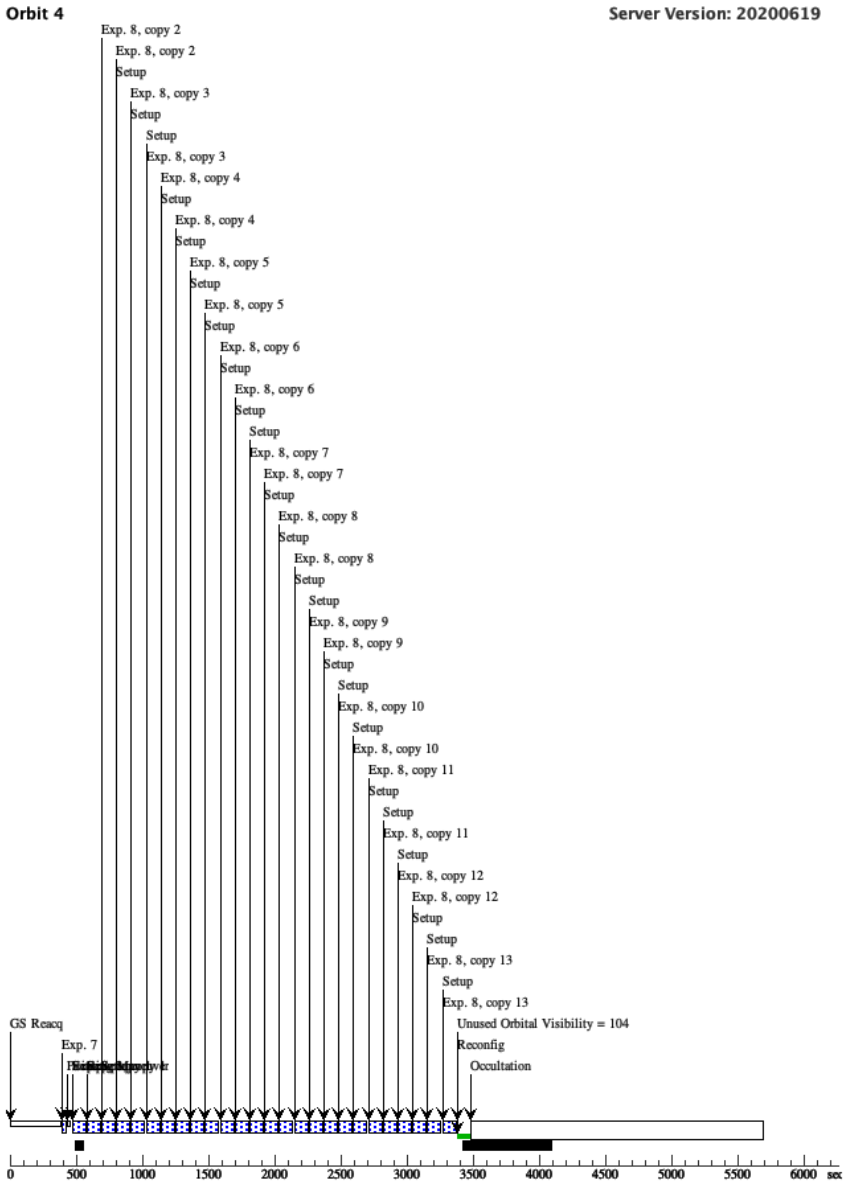
	8	(1) L-98-59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=4; SAMP-SEQ=SPARS25	POS TARG null,-21; SPATIAL SCAN 0.496,90.0 Degrees,Round trip	Sequence 7-8 Non-Int in planet d transit 1/1 (07)	69.61678 Secs X 13 (1810.036 Secs) *[==>(Copy 1, Forward)]* *[==>(Copy 1, Reverse)]* *[==>(Copy 2, Forward)]* *[==>(Copy 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)]* *[==>(Copy 9, Forward)]* *[==>(Copy 9, Reverse)]* *[==>(Copy 10, Forward)]* *[==>(Copy 10, Reverse)]* *[==>(Copy 11, Forward)]* *[==>(Copy 11, Reverse)]* *[==>(Copy 12, Forward)]* *[==>(Copy 12, Reverse)]* *[==>(Copy 13, Forward)]* *[==>(Copy 13, Reverse)]*	***[4]***

Orbit Structure




Orbit 2
Server Version: 20200619
Setup
Exp. 4, copy 2
Exp. 4, copy 3
Exp. 4, copy 4
Exp. 4, copy 5
Exp. 4, copy 6
Exp. 4, copy 7
Exp. 4, copy 8
Exp. 4, copy 9
Exp. 4, copy 10
Exp. 4, copy 11
Exp. 4, copy 12
Exp. 4, copy 13
GS Reacq
Exp. 3
Unused Orbital Visibility = 104
Pointing Maneuver
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 3
Server Version: 20200619
Setup
Exp. 6, copy 2
Setup
Setup
Exp. 6, copy 3
Exp. 6, copy 3
Setup
Exp. 6, copy 4
Setup
Setup
Exp. 6, copy 4
Setup
Exp. 6, copy 5
Setup
Exp. 6, copy 5
Setup
Exp. 6, copy 6
Exp. 6, copy 6
Setup
Setup
Exp. 6, copy 7
Setup
Exp. 6, copy 7
Setup
Exp. 6, copy 8
Setup
Exp. 6, copy 8
Exp. 6, copy 9
Setup
Exp. 6, copy 9
Setup
Exp. 6, copy 10
Setup
Setup
Exp. 6, copy 10
Setup
Exp. 6, copy 11
Exp. 6, copy 11
Setup
Setup
Exp. 6, copy 12
Exp. 6, copy 12
Setup
Setup
Exp. 6, copy 13
Setup
Exp. 6, copy 13
Pointing Maneuver
Unused Orbital Visibility = 104
Occultation
GS Reacq
Exp. 5
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec


Orbit 4
Server Version: 20200619
Exp. 8, copy 2
Exp. 8, copy 2
Setup
Exp. 8, copy 3
Setup
Setup
Exp. 8, copy 3
Exp. 8, copy 4
Setup
Exp. 8, copy 4
Setup
Exp. 8, copy 5
Setup
Exp. 8, copy 5
Setup
Exp. 8, copy 6
Setup
Exp. 8, copy 6
Setup
Setup
Exp. 8, copy 7
Exp. 8, copy 7
Setup
Exp. 8, copy 8
Setup
Exp. 8, copy 8
Setup
Setup
Exp. 8, copy 9
Exp. 8, copy 9
Setup
Setup
Exp. 8, copy 10
Setup
Exp. 8, copy 10
Exp. 8, copy 11
Setup
Setup
Exp. 8, copy 11
Setup
Exp. 8, copy 12
Exp. 8, copy 12
Setup
Setup
Exp. 8, copy 13
Setup
Exp. 8, copy 13
Unused Orbital Visibility = 104
Reconfig
Occultation
GS Reacq
Exp. 7
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec