16302 - Accretion Rates as a Diagnostic Tool for the Origin of Planetary-mass Companions

Cycle: 28, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Ya-Lin Wu (PI) (Contact)	**National Taiwan Normal University**	**yalinwu@ntnu.edu.tw**
Dr. Brendan Bowler (CoI)	University of Texas at Austin	bpbowler@astro.as.utexas.edu
Dr. Kimberly Ward-Duong (CoI)	Smith College	kwardduong@smith.edu
Dr. Katherine Brutlag Follette (CoI)	Amherst College	kfollette@amherst.edu
Dr. Adam L. Kraus (CoI)	University of Texas at Austin	alk@astro.as.utexas.edu
Dr. William Best (CoI)	University of Texas at Austin	wbest@utexas.edu
Dr. Yifan Zhou (CoI)	University of Texas at Austin	yifan.zhou@utexas.edu
Mr. Quang Tran (CoI)	University of Texas at Austin	quangtran@utexas.edu
Raquel Martinez (CoI)	University of Texas at Austin	ram@astro.as.utexas.edu
Dr. Ian Czekala (CoI)	The Pennsylvania State University	iczekala@psu.edu
Dr. Catherine Espaillat (CoI)	Boston University	cce@bu.edu
Dr. Connor Robinson (CoI)	Amherst College	corobinson@amherst.edu

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) SCH06-J0359+2009-B	WFC3/UVIS	2	18-Jan-2022 09:00:19.0	yes
02	(2) FU-TAU-B	WFC3/UVIS	2	18-Jan-2022 09:00:22.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
03	(3) CT-CHA-B	WFC3/UVIS	2	18-Jan-2022 09:00:24.0	yes
4A	(4) SR-12-AB-C	WFC3/UVIS	1	18-Jan-2022 09:00:26.0	yes
4B	(4) SR-12-AB-C	WFC3/UVIS	1	18-Jan-2022 09:00:27.0	yes
05	(5) 2M0249-0557-C	WFC3/UVIS	2	18-Jan-2022 09:00:30.0	yes
06	(6) KPNO-12	WFC3/UVIS	2	18-Jan-2022 09:00:32.0	yes
07	(7) S-ORI-J0538-0259	WFC3/UVIS	2	18-Jan-2022 09:00:34.0	yes
08	(8) S-ORI-56	WFC3/UVIS	2	18-Jan-2022 09:00:37.0	yes
9A	(9) CHA-J1109-7734	WFC3/UVIS	1	18-Jan-2022 09:00:38.0	yes
9B	(9) CHA-J1109-7734	WFC3/UVIS	1	18-Jan-2022 09:00:40.0	yes
10	(10) OTS-44	WFC3/UVIS	2	18-Jan-2022 09:00:42.0	yes
11	(11) USCO-J1608-2315	WFC3/UVIS	2	18-Jan-2022 09:00:44.0	yes
12	(12) GY-141	WFC3/UVIS	2	18-Jan-2022 09:00:46.0	yes
13	(13) OPH-90	WFC3/UVIS	2	18-Jan-2022 09:00:49.0	yes

26 Total Orbits Used

ABSTRACT

Direct imaging surveys have revealed a new population of substellar companions with masses around the deuterium burning limit and orbits often farther than 100 AU. The formation of these planetary-mass companions (PMCs) is not fully understood. While core/pebble accretion and dynamical scattering seem unlikely, disk fragmentation and prestellar core collapse remain to be tested. Simulations have shown that disk fragmentation generally leads to higher mass accretion rates than prestellar core collapse. Therefore, PMCs are expected to have higher accretion rates than free-floating planets/brown dwarfs if disk fragmentation is the dominant formation channel. Alternatively, if both populations have indistinguishable accretion rates, that would suggest a common origin. To test this prediction, we propose to observe the UV continuum excess and H-alpha emission for PMCs and free-floating objects with WFC3/UVIS multi-band imaging. Our targets are of comparable mass and age, and have evidence indicative of disks. We will carry out shock modeling and search for any population-level accretion rate differences between the two samples. We will also investigate the empirical relationship between H-alpha line luminosities and accretion luminosities from the stellar-mass toward the planetary-mass regime, in order to establish whether the mass assembly process for stars, brown dwarfs, and planetary-mass objects are analogous and continuous.

OBSERVING DESCRIPTION

We propose to measure the intensity of H-alpha emission and the UV/optical spectral energy distribution between 2000 A and 8000 A for 5 wide-orbit planetary-mass companions and 8 free-floating planets/brown dwarfs, with the narrow-band filter F656N for H-alpha and 6 wide-band filters for the accretion-induced continuum excess (F225W, F336W, F438W, F555W, F625W, F775W). The observed fluxes are expected to predominantly originate from the accretion continuum as the photospheric emission from young planetary-mass objects is faint in the optical.

The exposure times are chosen to reach a sensitivity level of 10^-19 erg/s/cm^2/A in all wide-band filters, ensuring that we can readily detect the photosphere of a ~10 Jupiter-mass object at wavelengths longer than 5000 A: 2000 s for F225W, 500 s for F336W, 500 s for F438W, 150 s for F555W, 120 s for F625W, and 150 s for F775W. Our photometric sensitivity corresponds to a mass accretion rate of 10^-13 Msun/yr based on Robinson & Espaillat (2019). The exposure time for F656N, 1200 s, will reach a rms of <10^-18 erg/s/cm^2/A, which is about the expected photospheric level at 6500 A and therefore ensures a very high S/N detection of H-alpha.

To calculate the H-alpha line intensity, we will estimate the adjacent continuum by fitting atmospheric/accretion models to the observed F625W and F775W fluxes. The choice of F336W and F438W allows us to characterize the Balmer jump and help model the temperature and density of the accretion flow. The F225W filter is important to probe the peak of the UV continuum.

We describe our observation sequence as follows. We will observe each target for two consecutive orbits, one orbit with the optical filters (F438W, F555W, F625W, F656N, F775W) and the other orbit with the UV filters (F225W, F336W). In total, we will use 26 orbits for this program (13 targets x 2 orbits/target). To minimize the overheads and avoid the lengthy pauses of reading out the instrument buffer, we will use the UVIS2-C512C-SUB subarray (513 x 512 pixels). Its field of view (~20") is large enough to simultaneously image the companions as well as the primary stars. We will adopt the 3-point dither pattern (WFC3-UVIS-DITHER-LINE-3PT) for the observations to efficiently remove cosmic rays. For observations of those 5 companions ([SCH06] J0359+2009 B, FU Tau B, CT Cha B, SR 12 c, CS Cha c), we also specify the acceptable ORIENT in order to minimize any impact from diffraction spikes and bleeding.

Visit

Proposal 16302, Visit 01, completed Tue Jan 18 14:00:49 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE; ORIENT 4.2D TO 29.2 D; ORIENT 49.2D TO 74.2 D; ORIENT 94.2D TO 164.2 D; ORIENT 184.2D TO 209.2 D; ORIENT 229.2D TO 254.2 D; ORIENT 274.2D TO 344.2 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

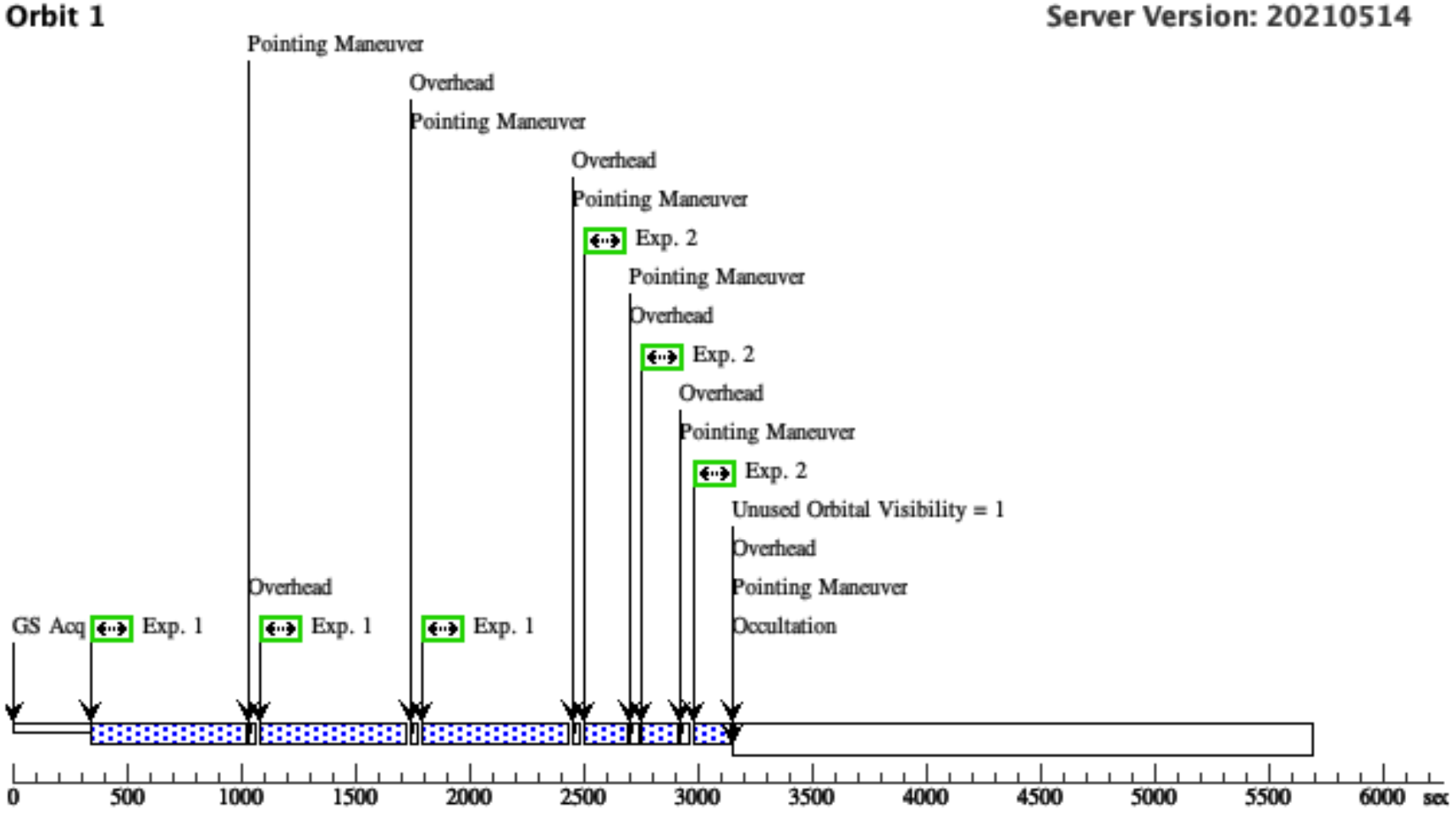
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SCH06-J0359+2009-B	RA: 03 59 9.5400 (59.7897500d) Dec: +20 09 35.40 (20.15983d) Equinox: J2000		V=23	Reference Frame: ICRS

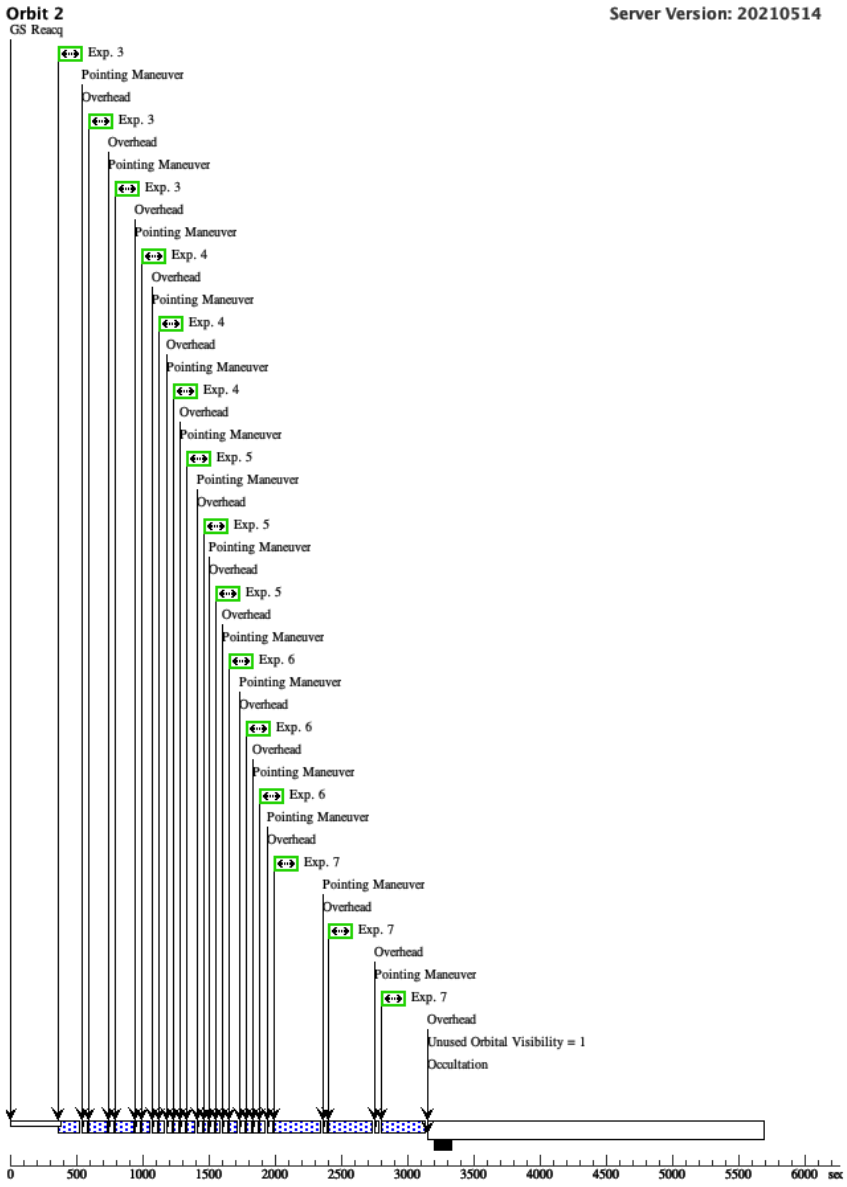
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) SCH06-J0359+2009-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 01	647 Secs (1941 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(1) SCH06-J0359+2009-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 01	162 Secs (486 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(1) SCH06-J0359+2009-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 01	140 Secs (420 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(1) SCH06-J0359+2009-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 01	42 Secs (126 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(1) SCH06-J0359+2009-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 01	34 Secs (102 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(1) SCH06-J0359+2009-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 01	42 Secs (126 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(1) SCH06-J0359+2009-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 01	337 Secs (1011 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Pointing Maneuver
Overhead
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Overhead
Unused Orbital Visibility = 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 02, completed Tue Jan 18 14:00:50 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE; ORIENT 312.8D TO 22.8 D; ORIENT 42.8D TO 67.8 D; ORIENT 87.8D TO 112.8 D; ORIENT 132.8D TO 202.8 D; ORIENT 222.8D TO 247.8 D; ORIENT 267.8D TO 292.8 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

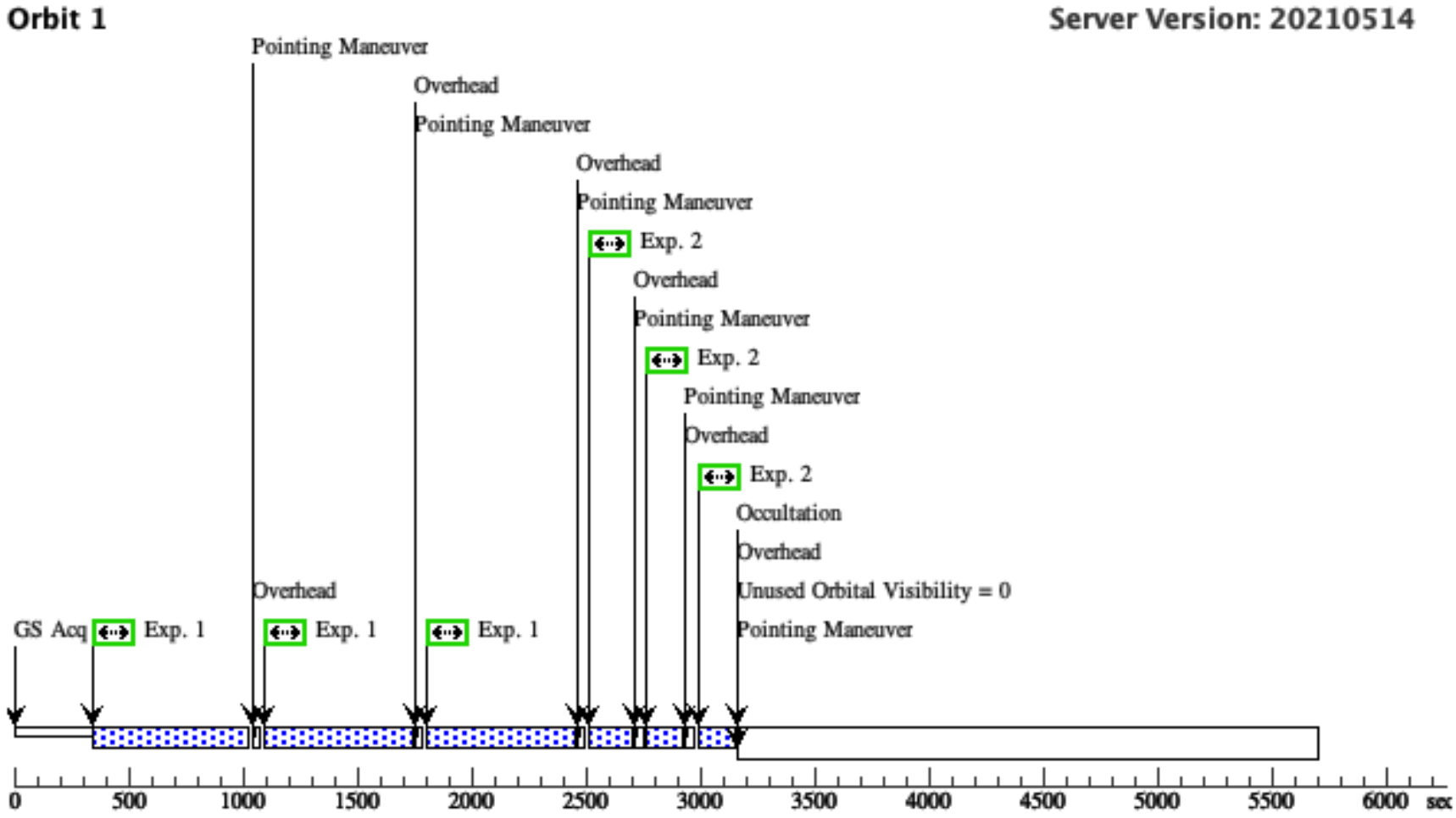
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	FU-TAU-B	RA: 04 23 35.7500 (65.8989583d) Dec: +25 02 59.20 (25.04978d) Equinox: J2000		V=23	Reference Frame: ICRS

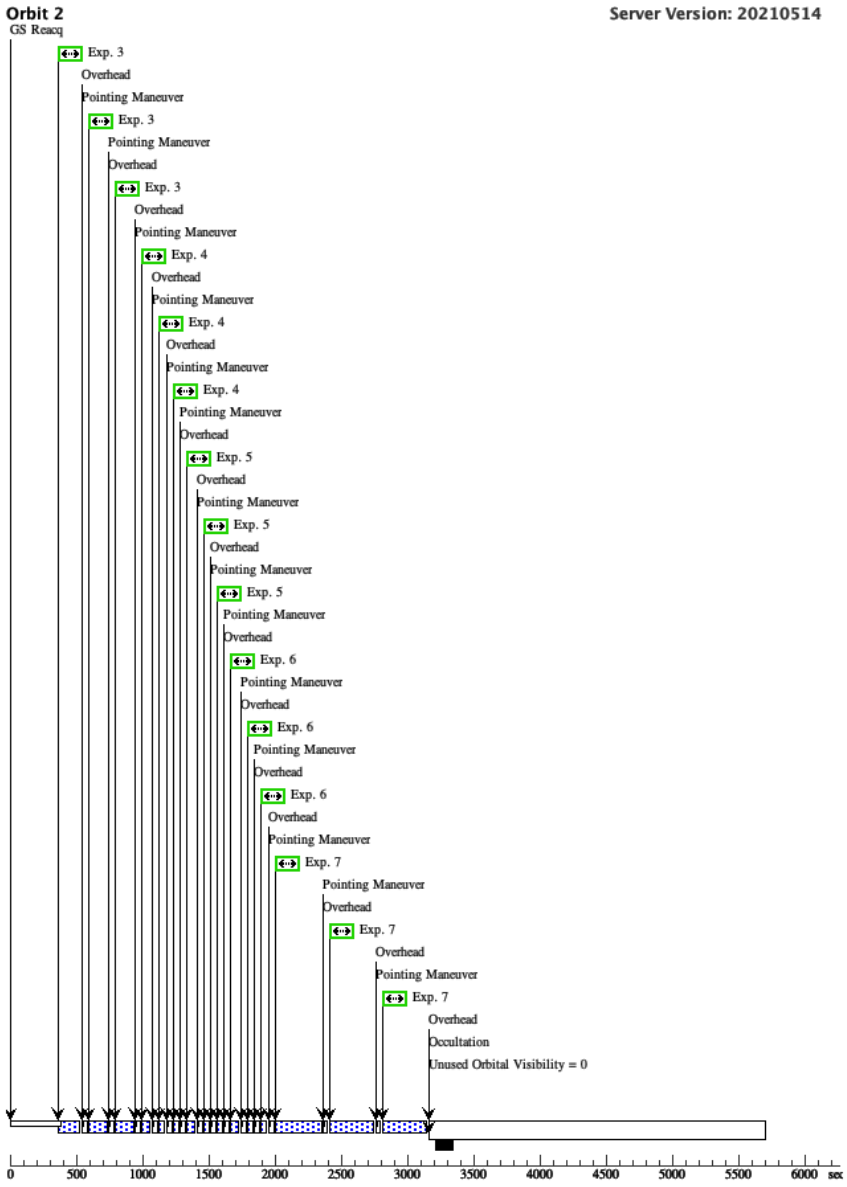
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) FU-TAU-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 02	651 Secs (1953 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(2) FU-TAU-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 02	161 Secs (483 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(2) FU-TAU-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 02	140 Secs (420 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(2) FU-TAU-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 02	42 Secs (126 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(2) FU-TAU-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 02	37 Secs (111 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(2) FU-TAU-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 02	42 Secs (126 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(2) FU-TAU-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 02	337 Secs (1011 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Overhead
Occultation
Unused Orbital Visibility = 0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 03, completed Tue Jan 18 14:00:50 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE; ORIENT 310D TO 20 D; ORIENT 40D TO 65 D; ORIENT 85D TO 110 D; ORIENT 130D TO 200 D; ORIENT 220D TO 245 D; ORIENT 265D TO 290 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

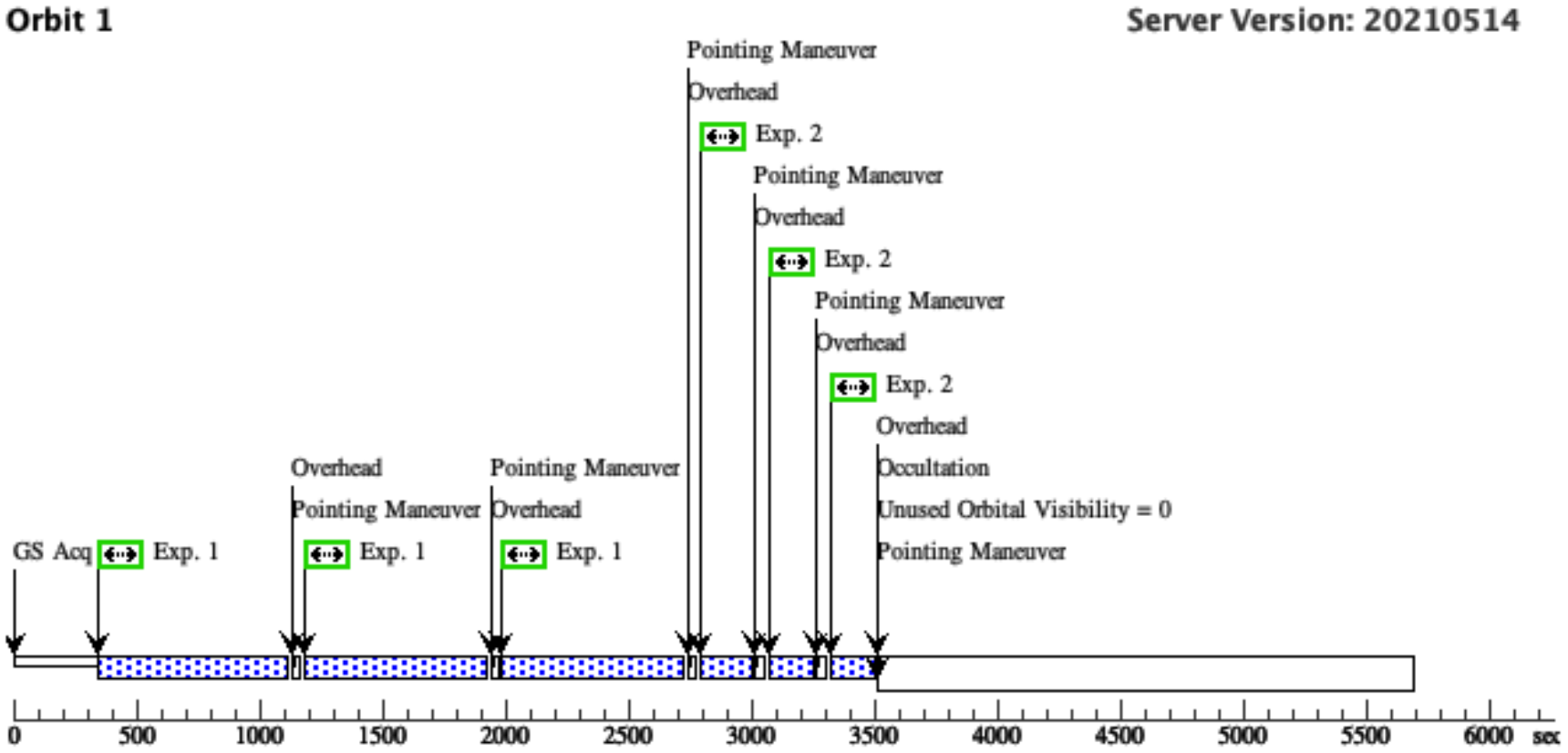
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	CT-CHA-B	RA: 11 04 8.3400 (166.0347500d) Dec: -76 27 18.00 (-76.45500d) Equinox: J2000		V=23	Reference Frame: ICRS

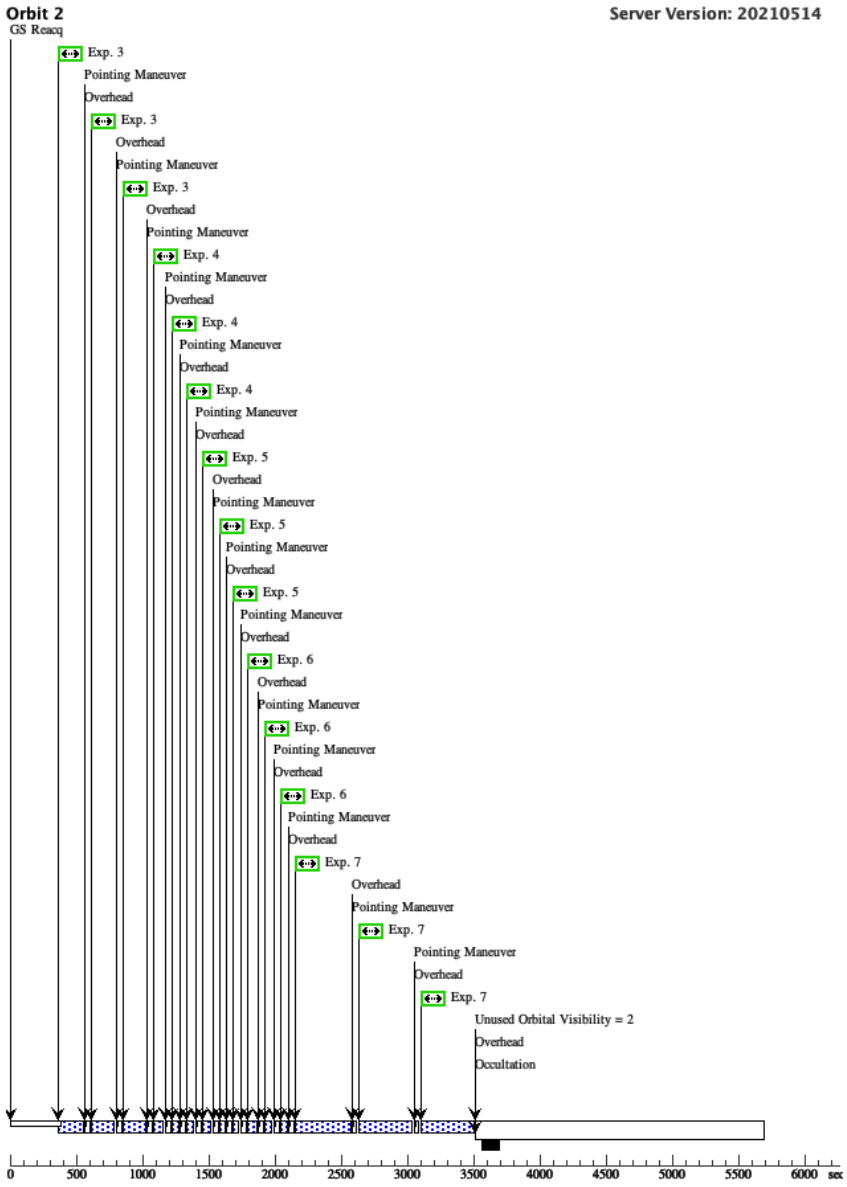
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(3) CT-CHA-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 03	745 Secs (2235 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(3) CT-CHA-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 03	185 Secs (555 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(3) CT-CHA-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 03	169 Secs (507 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(3) CT-CHA-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 03	51 Secs (153 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(3) CT-CHA-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 03	41 Secs (123 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(3) CT-CHA-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 03	51 Secs (153 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(3) CT-CHA-B	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=19		Sequence 7-7 Non-Int in Visit 03	404 Secs (1212 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 4
Pointing Maneuver
Overhead
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Unused Orbital Visibility = 2
Overhead
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 4A, completed Tue Jan 18 14:00:50 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE; ORIENT 130.8D TO 290.8 D; ORIENT 310.8D TO 110.8 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5)

Fixed Targets

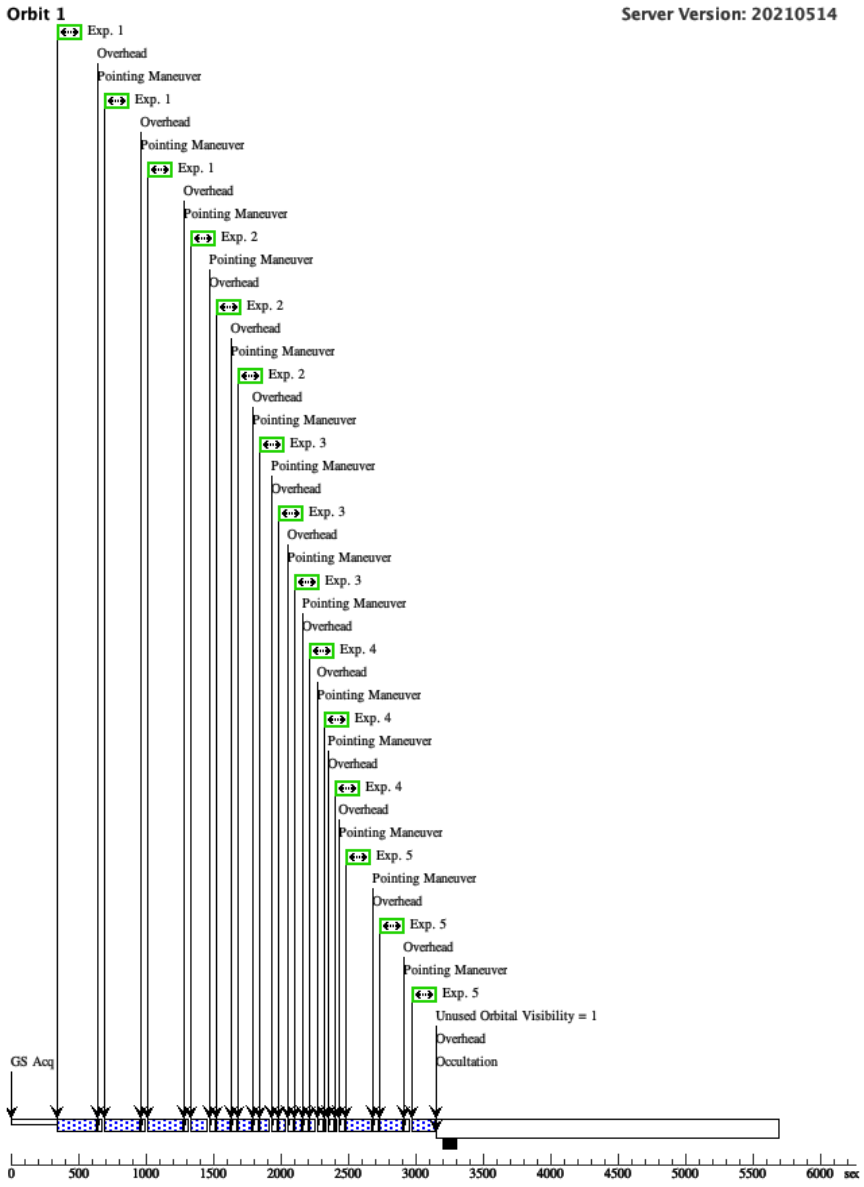
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SR-12-AB-C	RA: 16 27 19.6600 (246.8319167d) Dec: -24 41 49.20 (-24.69700d) Equinox: J2000		V=23	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=19		Sequence 1-1 Non-Int in Visit 4A	258 Secs (774 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 4A (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 4A	97 Secs (291 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 4A (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=20		Sequence 3-3 Non-Int in Visit 4A	52 Secs (156 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 4A (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
4		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=20		Sequence 4-4 Non-Int in Visit 4A	15 Secs (45 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 4A (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
5		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 5-5 Non-Int in Visit 4A	172 Secs (516 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 4A (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***

Orbit Structure



Visit

Proposal 16302, Visit 4B, completed Tue Jan 18 14:00:50 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE; ORIENT 130.8D TO 290.8 D; ORIENT 310.8D TO 110.8 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5)

Fixed Targets

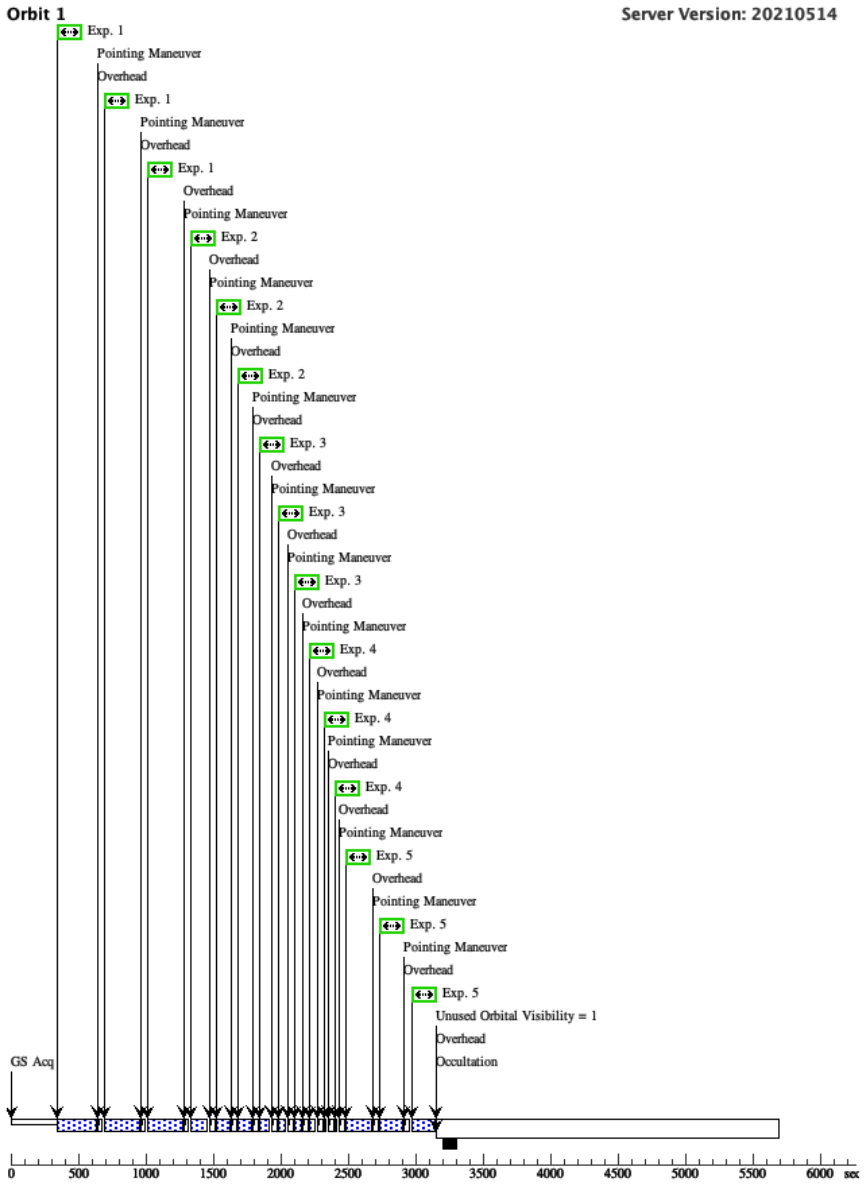
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SR-12-AB-C	RA: 16 27 19.6600 (246.8319167d) Dec: -24 41 49.20 (-24.69700d) Equinox: J2000		V=23	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=19		Sequence 1-1 Non-Int in Visit 4B	258 Secs (774 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 4B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
2		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 4B	97 Secs (291 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 4B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
3		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=20		Sequence 3-3 Non-Int in Visit 4B	52 Secs (156 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 4B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
4		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=20		Sequence 4-4 Non-Int in Visit 4B	15 Secs (45 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 4B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
5		(4) SR-12-AB-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 5-5 Non-Int in Visit 4B	172 Secs (516 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 4B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	

Orbit Structure



Visit

Proposal 16302, Visit 05, completed Tue Jan 18 14:00:50 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE; ORIENT 31.2D TO 56.2 D; ORIENT 76.2D TO 101.2 D; ORIENT 121.2D TO 191.2 D; ORIENT 211.2D TO 236.2 D; ORIENT 256.2D TO 281.2 D; ORIENT 301.2D TO 11.2 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

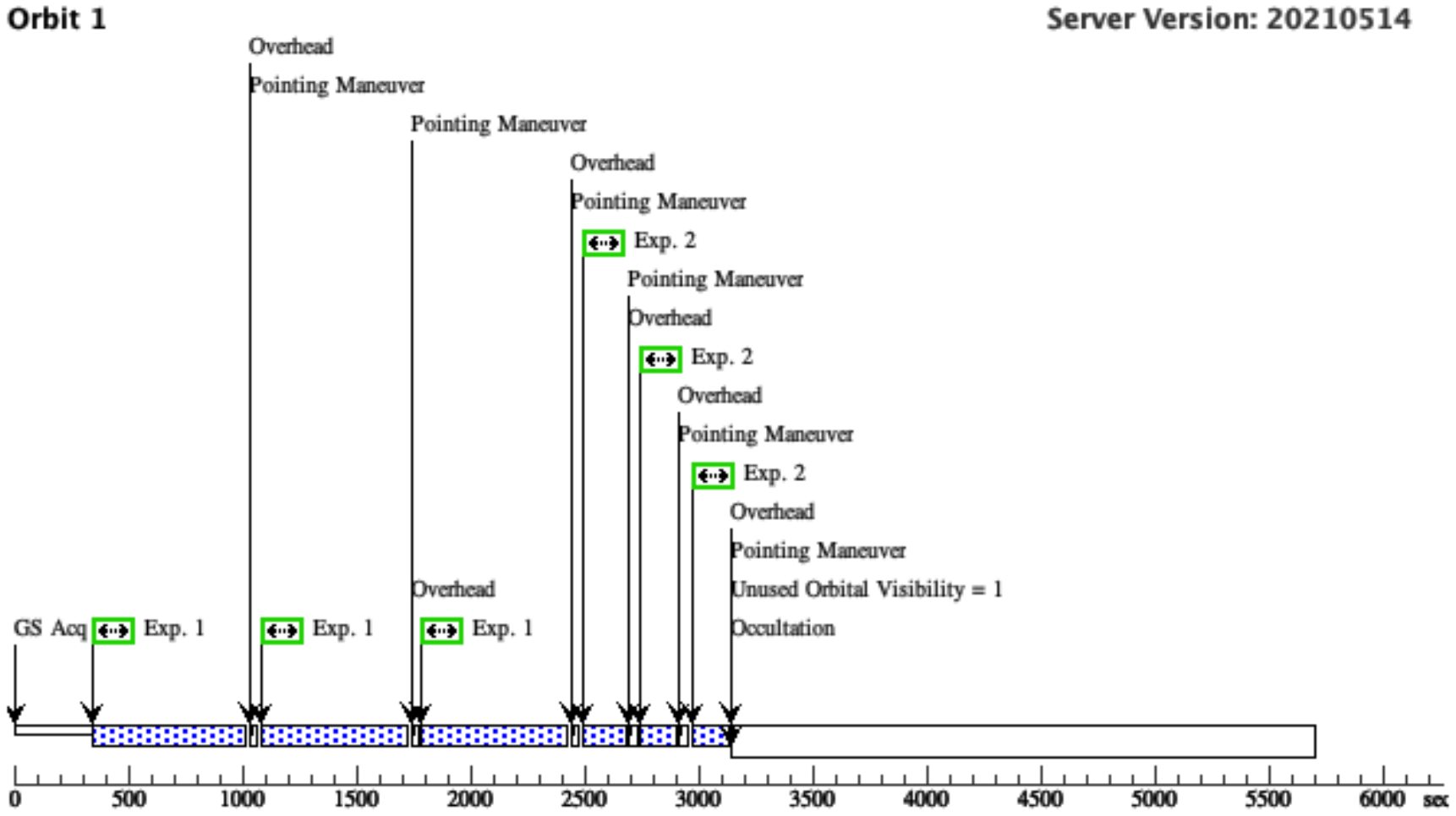
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	2M0249-0557-C	RA: 02 49 54.4760 (42.4769833d) Dec: -05 58 2.36 (-5.96732d) Equinox: J2000		V=23	Reference Frame: ICRS

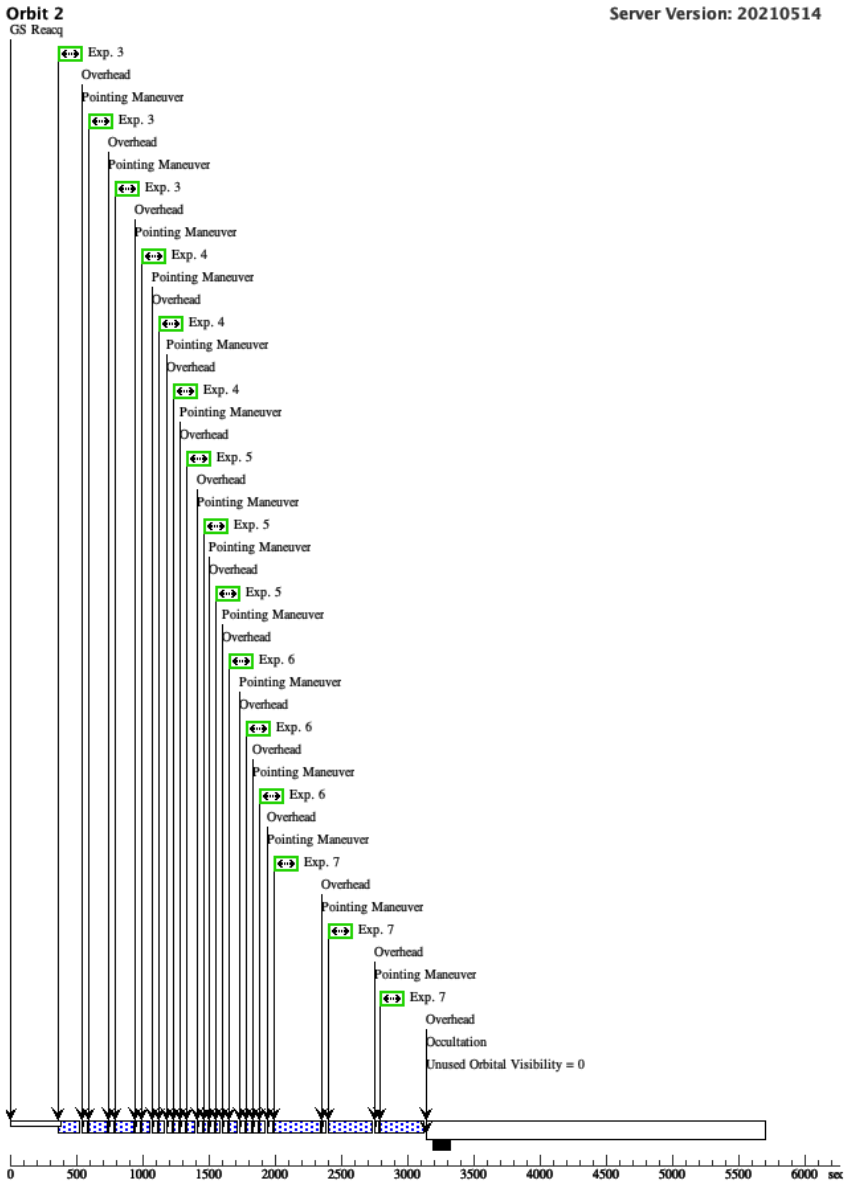
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(5) 2M0249-0557-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 05	645 Secs (1935 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 05 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(5) 2M0249-0557-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 05	160 Secs (480 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 05 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(5) 2M0249-0557-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 05	140 Secs (420 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 05 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(5) 2M0249-0557-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 05	42 Secs (126 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 05 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(5) 2M0249-0557-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 05	34 Secs (102 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 05 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(5) 2M0249-0557-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 05	42 Secs (126 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 05 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(5) 2M0249-0557-C	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=19		Sequence 7-7 Non-Int in Visit 05	334 Secs (1002 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 05 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 4
Pointing Maneuver
Overhead
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Overhead
Occultation
Unused Orbital Visibility = 0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 06, implementation Tue Jan 18 14:00:50 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

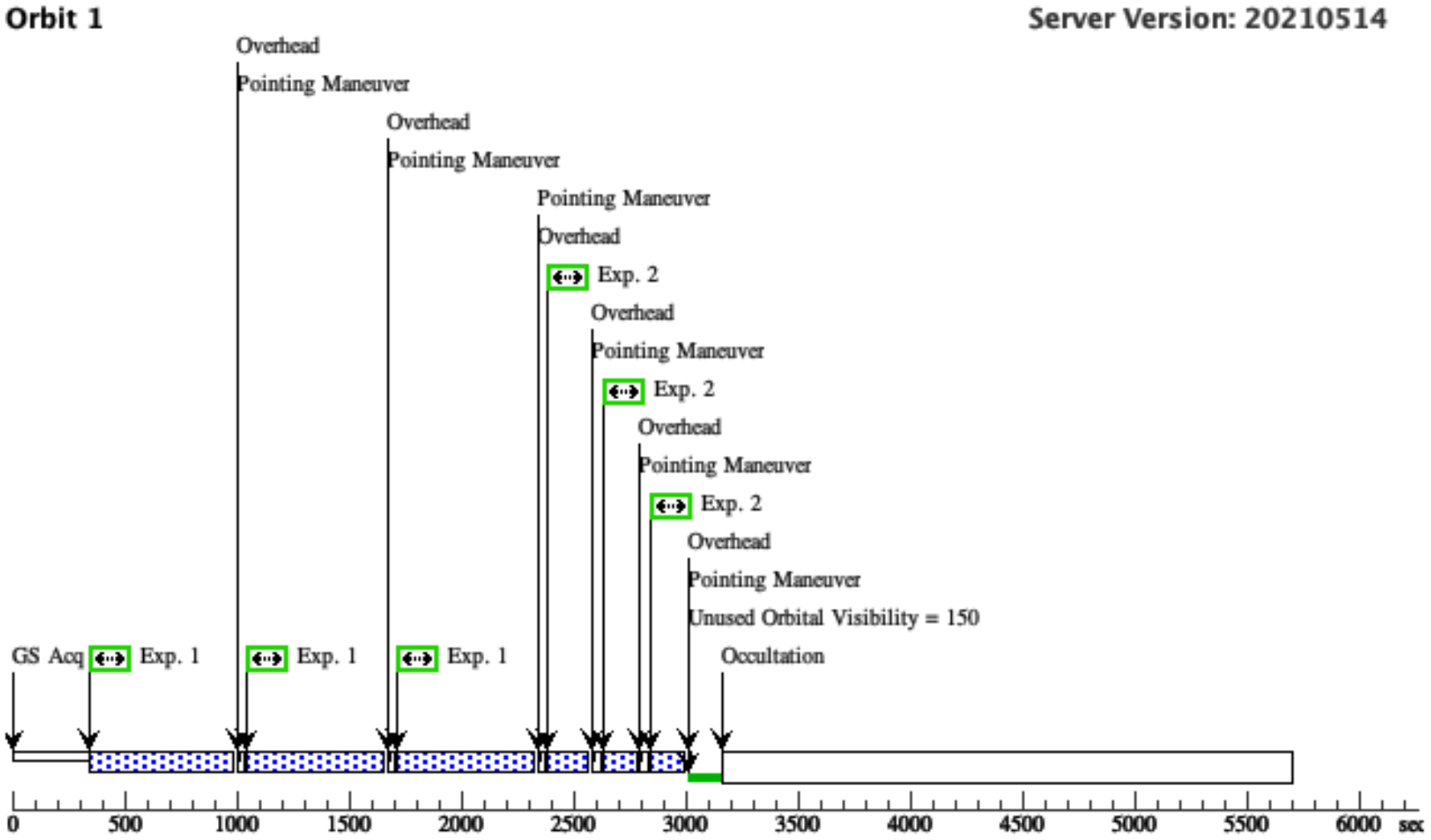
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	KPNO-12	RA: 04 19 1.2800 (64.7553333d) Dec: +28 02 48.10 (28.04669d) Equinox: J2000		V=23	Reference Frame: ICRS

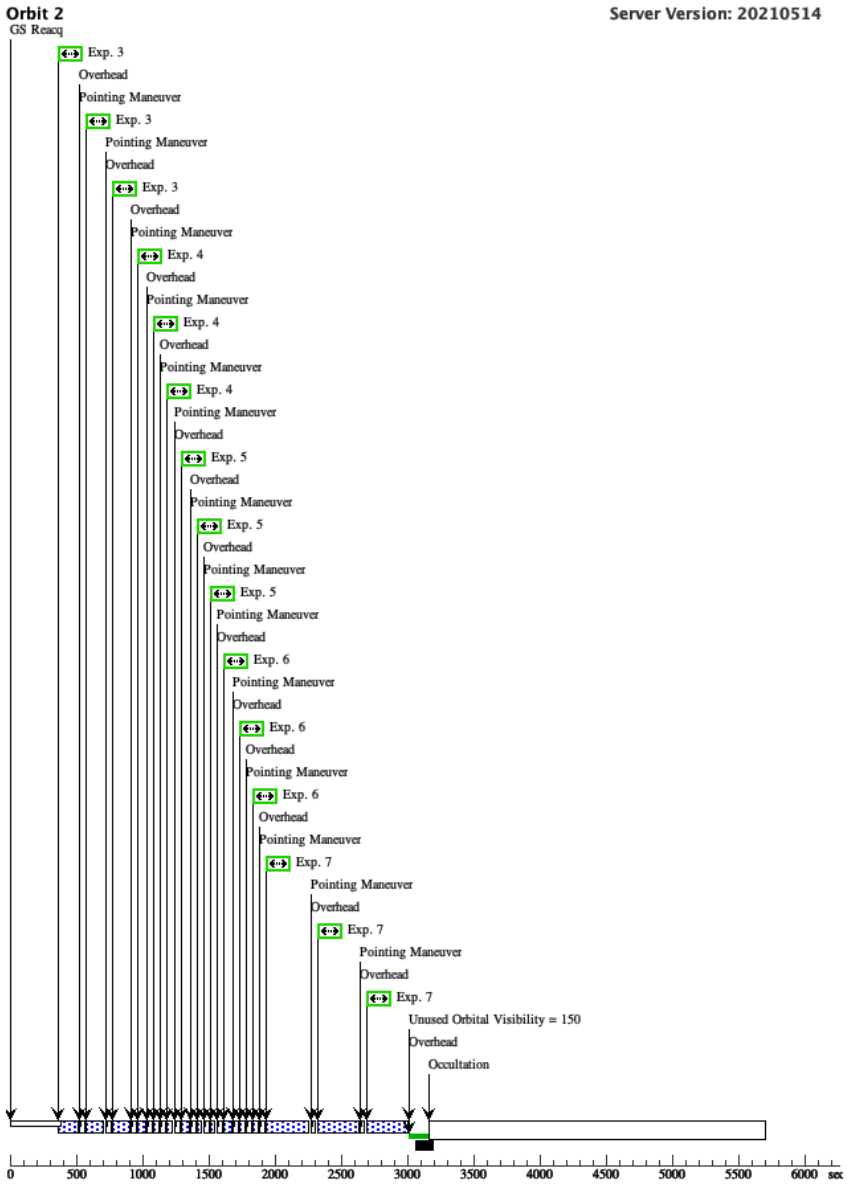
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(6) KPNO-12	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 06	610 Secs (1830 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 06 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(6) KPNO-12	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 06	152 Secs (456 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 06 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(6) KPNO-12	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 06	128 Secs (384 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 06 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(6) KPNO-12	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 06	38 Secs (114 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 06 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(6) KPNO-12	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 06	35 Secs (105 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 06 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(6) KPNO-12	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 06	38 Secs (114 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 06 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(6) KPNO-12	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 06	309 Secs (927 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 06 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Unused Orbital Visibility = 150
Overhead
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 07, completed Tue Jan 18 14:00:50 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

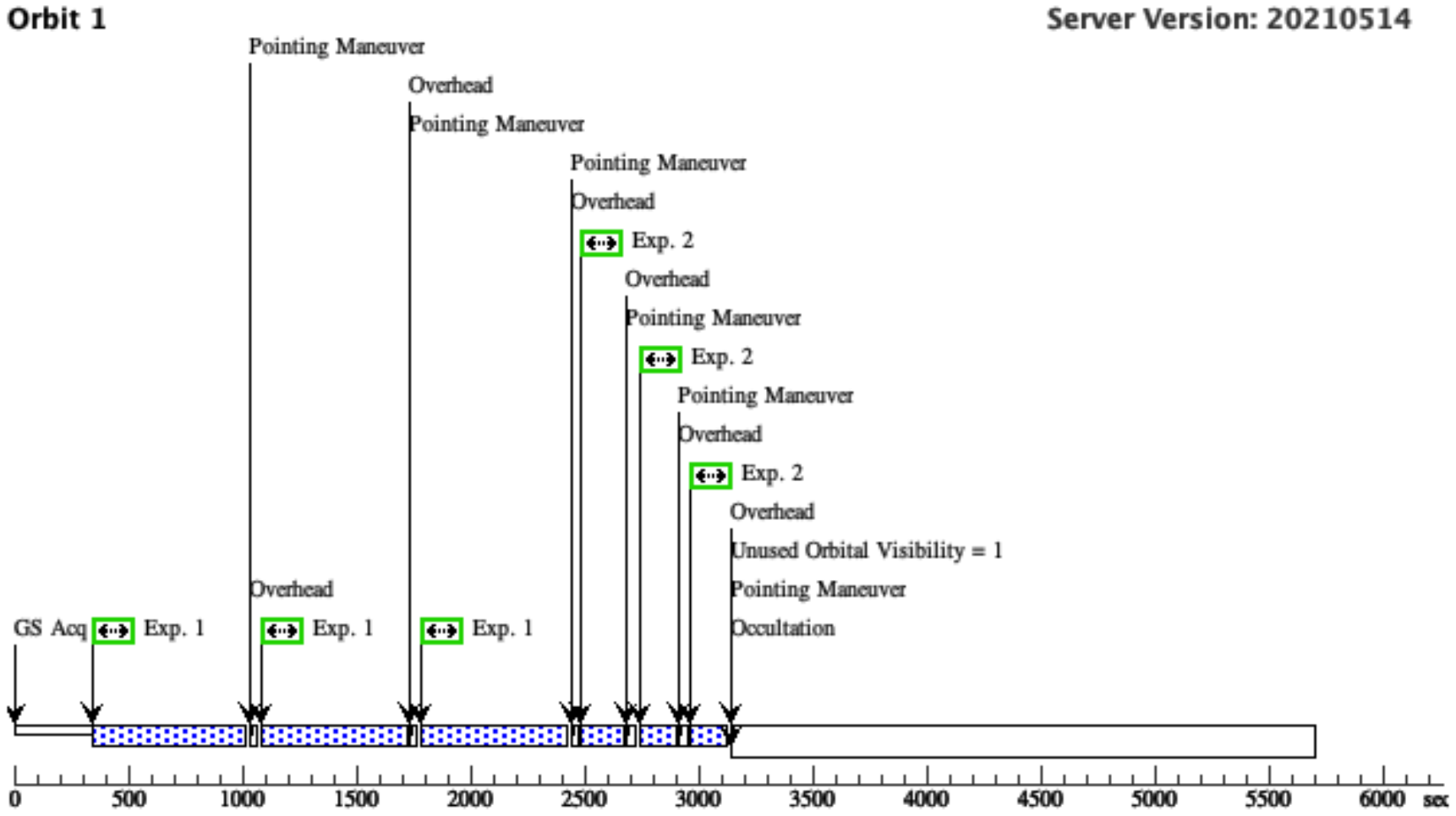
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	S-ORI-J0538-0259	RA: 05 38 29.5100 (84.6229583d) Dec: -02 59 59.10 (-2.99975d) Equinox: J2000		V=23	Reference Frame: ICRS

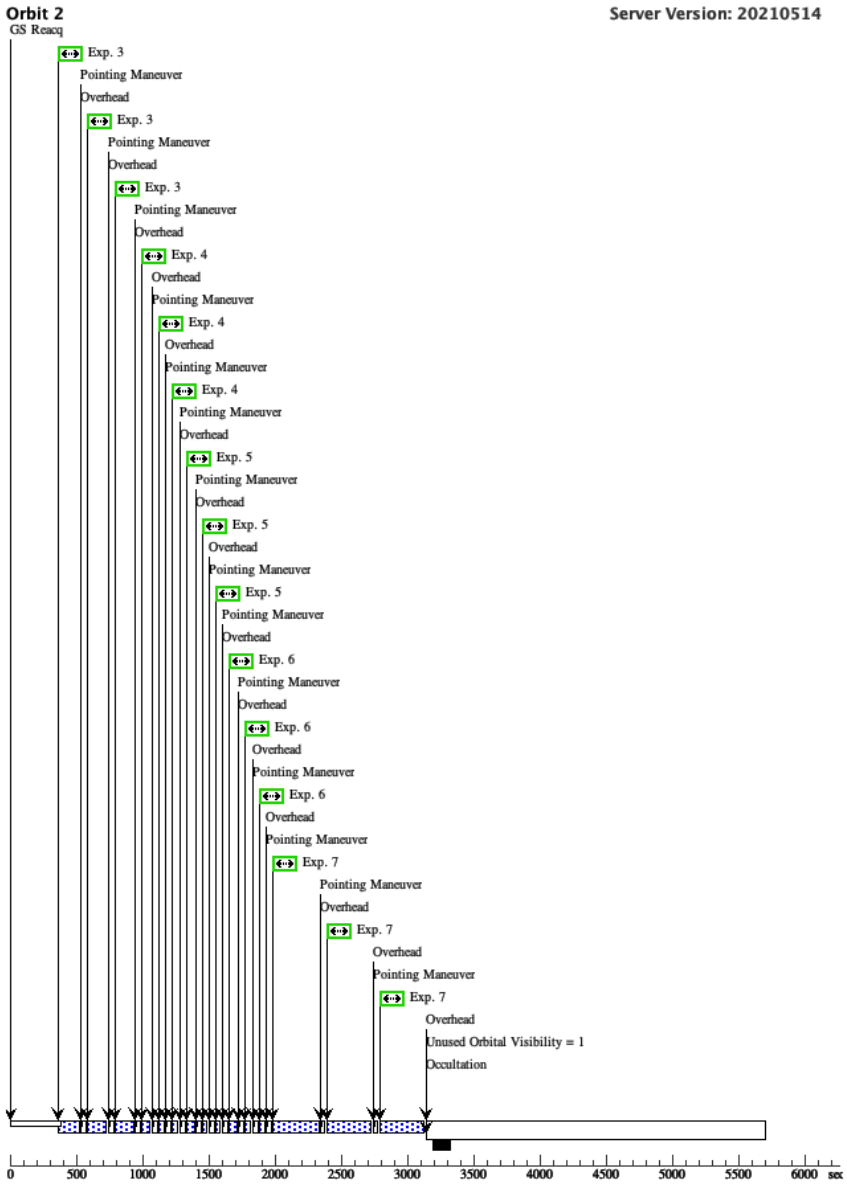
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(7) S-ORI-J0538-025 9	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 07	643 Secs (1929 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 07 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(7) S-ORI-J0538-025 9	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 07	161 Secs (483 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 07 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(7) S-ORI-J0538-025 9	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 07	139 Secs (417 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 07 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(7) S-ORI-J0538-025 9	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 07	41 Secs (123 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 07 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(7) S-ORI-J0538-025 9	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 07	34 Secs (102 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 07 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(7) S-ORI-J0538-025 9	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 07	41 Secs (123 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 07 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(7) S-ORI-J0538-025 9	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 07	335 Secs (1005 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 07 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Pointing Maneuver
Overhead
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Overhead
Unused Orbital Visibility = 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 08, completed Tue Jan 18 14:00:51 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

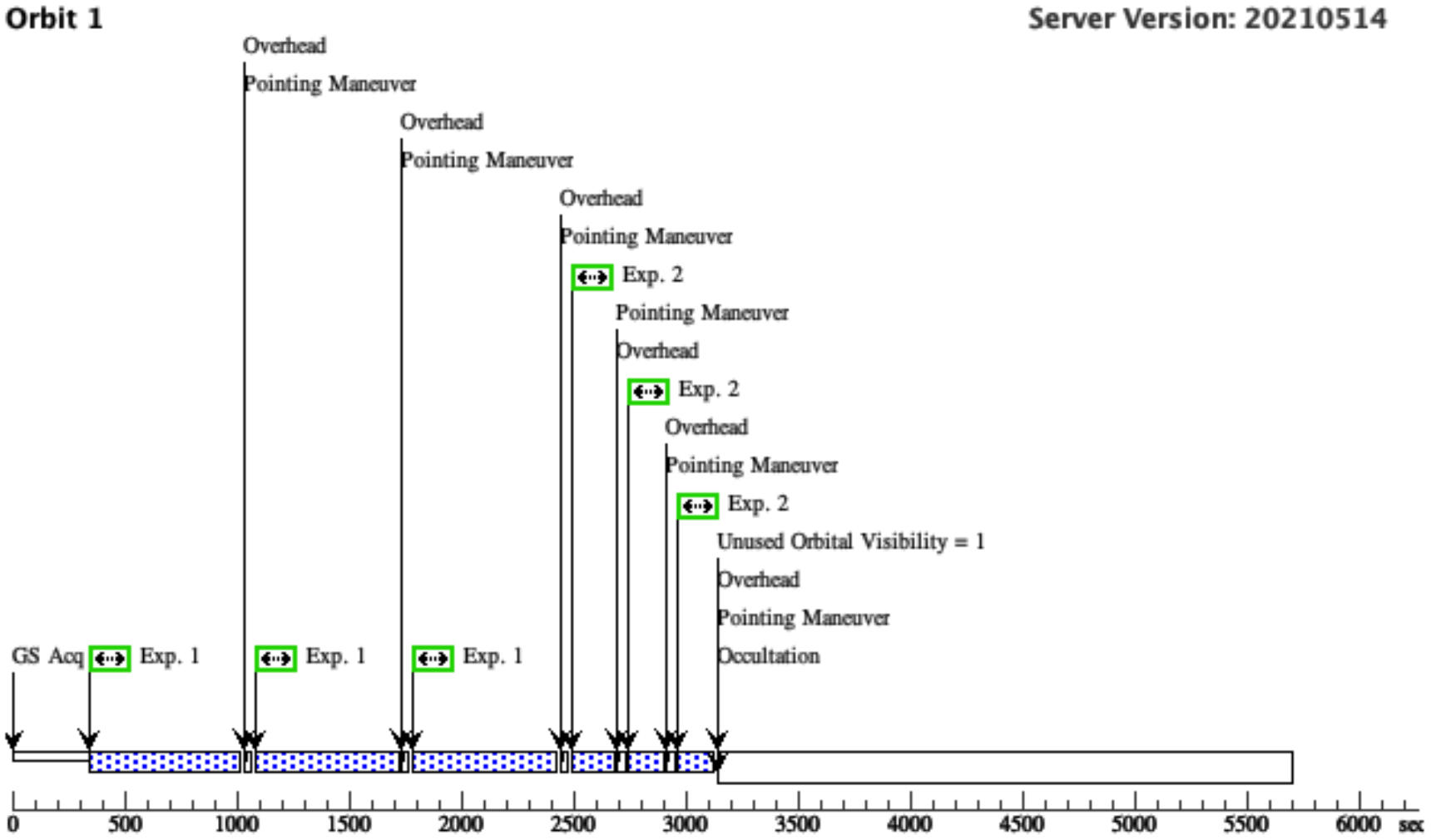
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	S-ORI-56	RA: 05 39 0.7900 (84.7532917d) Dec: -02 21 41.80 (-2.36161d) Equinox: J2000		V=23	Reference Frame: ICRS

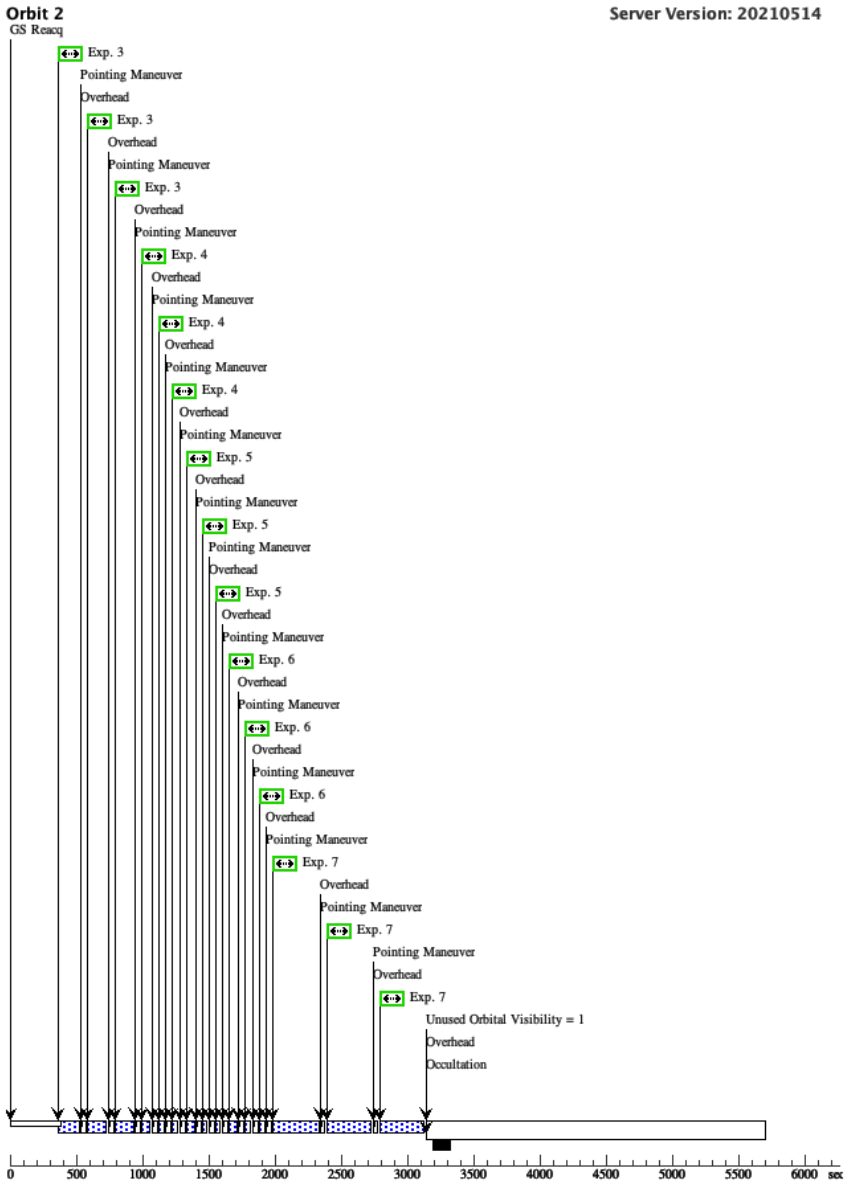
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(8) S-ORI-56	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 08	644 Secs (1932 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 08 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(8) S-ORI-56	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 08	160 Secs (480 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 08 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(8) S-ORI-56	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 08	139 Secs (417 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 08 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(8) S-ORI-56	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 08	41 Secs (123 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 08 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(8) S-ORI-56	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 08	34 Secs (102 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 08 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(8) S-ORI-56	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 08	41 Secs (123 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 08 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(8) S-ORI-56	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 08	335 Secs (1005 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 08 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Unused Orbital Visibility = 1
Overhead
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 9A, completed Tue Jan 18 14:00:51 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5)

Fixed Targets

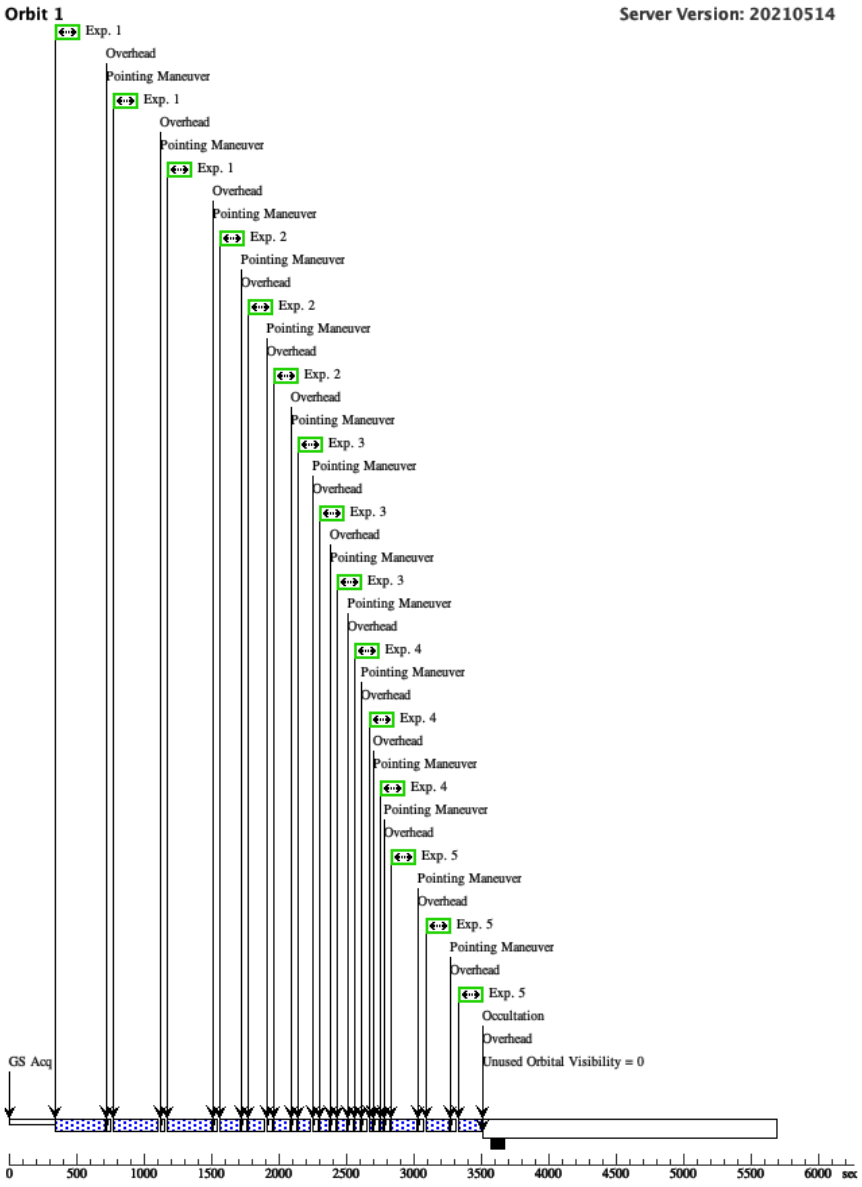
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	CHA-J1109-7734	RA: 11 09 13.6300 (167.3067917d) Dec: -77 34 44.60 (-77.57906d) Equinox: J2000		V=23	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=19		Sequence 1-1 Non-Int in Visit 9A Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 9A (2)	336 Secs (1008 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 9A Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 9A (2)	120 Secs (360 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=20		Sequence 3-3 Non-Int in Visit 9A Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 9A (2)	66 Secs (198 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
4		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=20		Sequence 4-4 Non-Int in Visit 9A Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 9A (2)	18 Secs (54 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
5		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 5-5 Non-Int in Visit 9A Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 9A (2)	175 Secs (525 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***

Orbit Structure



Visit

Proposal 16302, Visit 9B, completed Tue Jan 18 14:00:51 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5)

Fixed Targets

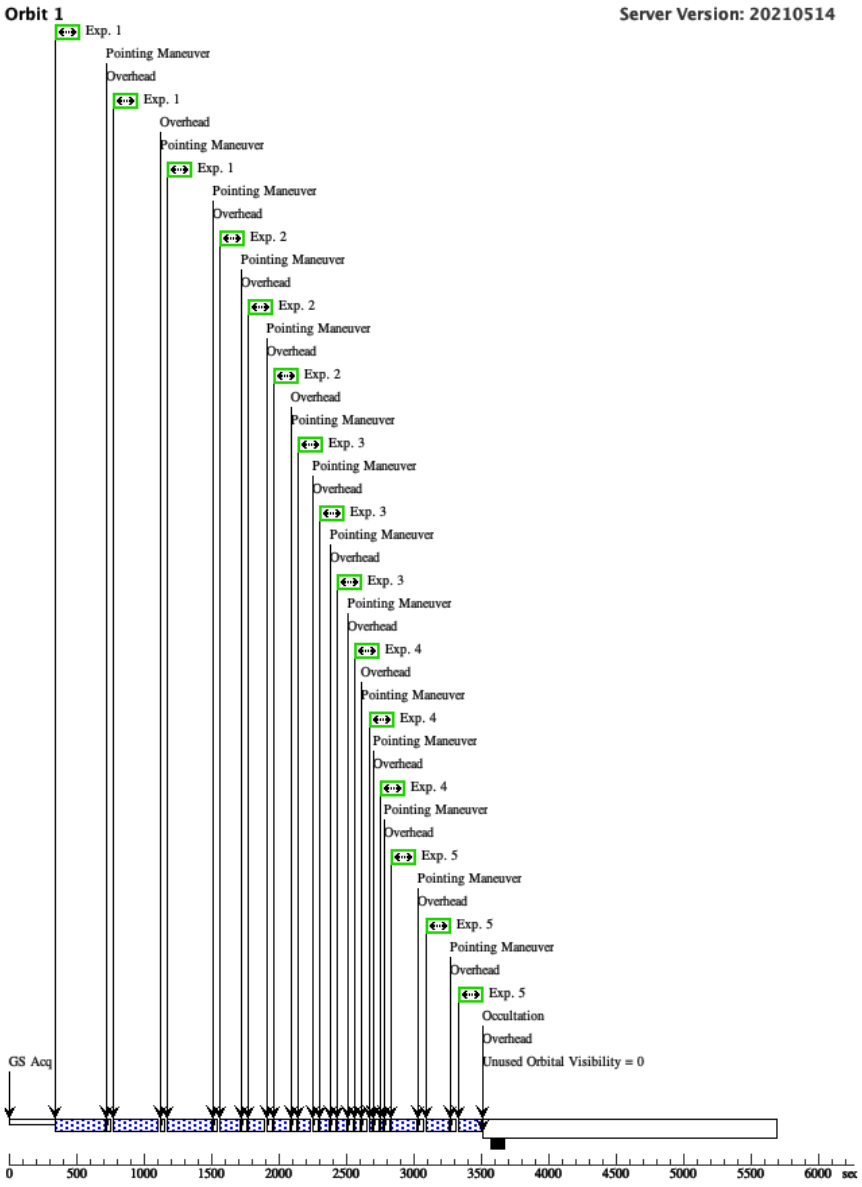
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	CHA-J1109-7734	RA: 11 09 13.6300 (167.3067917d) Dec: -77 34 44.60 (-77.57906d) Equinox: J2000		V=23	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=19		Sequence 1-1 Non-Int in Visit 9B	336 Secs (1008 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 9B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
2		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 9B	120 Secs (360 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 9B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
3		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=20		Sequence 3-3 Non-Int in Visit 9B	66 Secs (198 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 9B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
4		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=20		Sequence 4-4 Non-Int in Visit 9B	18 Secs (54 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 9B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	
5		(9) CHA-J1109-7734	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 5-5 Non-Int in Visit 9B	175 Secs (525 Secs)	
								[==>(Pattern 1)]	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 9B (2)	*[==>(Pattern 2)]*	***[1]***
								[==>(Pattern 3)]	

Orbit Structure



Visit

Proposal 16302, Visit 10, completed Tue Jan 18 14:00:51 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

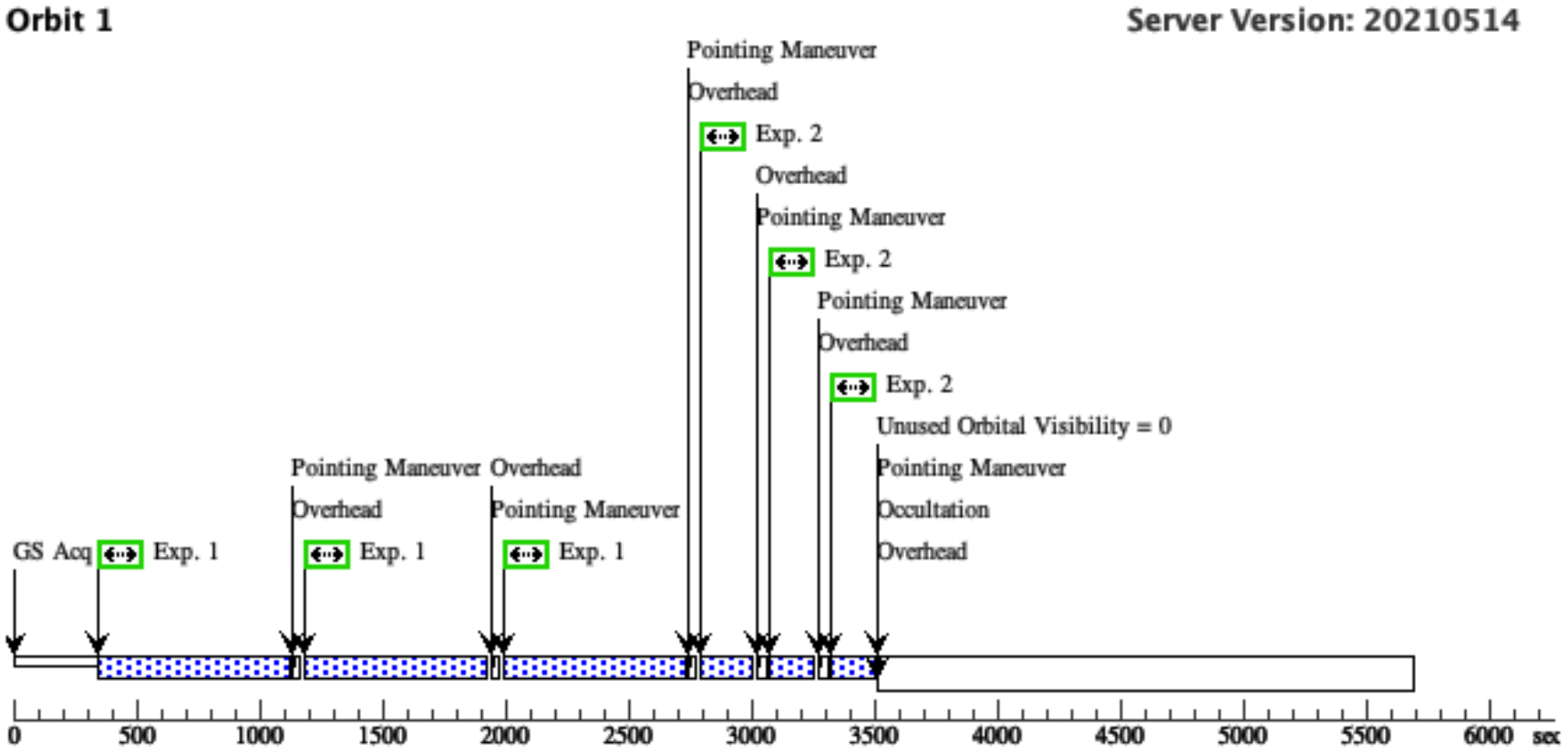
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	OTS-44	RA: 11 10 9.3400 (167.5389167d) Dec: -76 32 17.90 (-76.53831d) Equinox: J2000		V=23	Reference Frame: ICRS

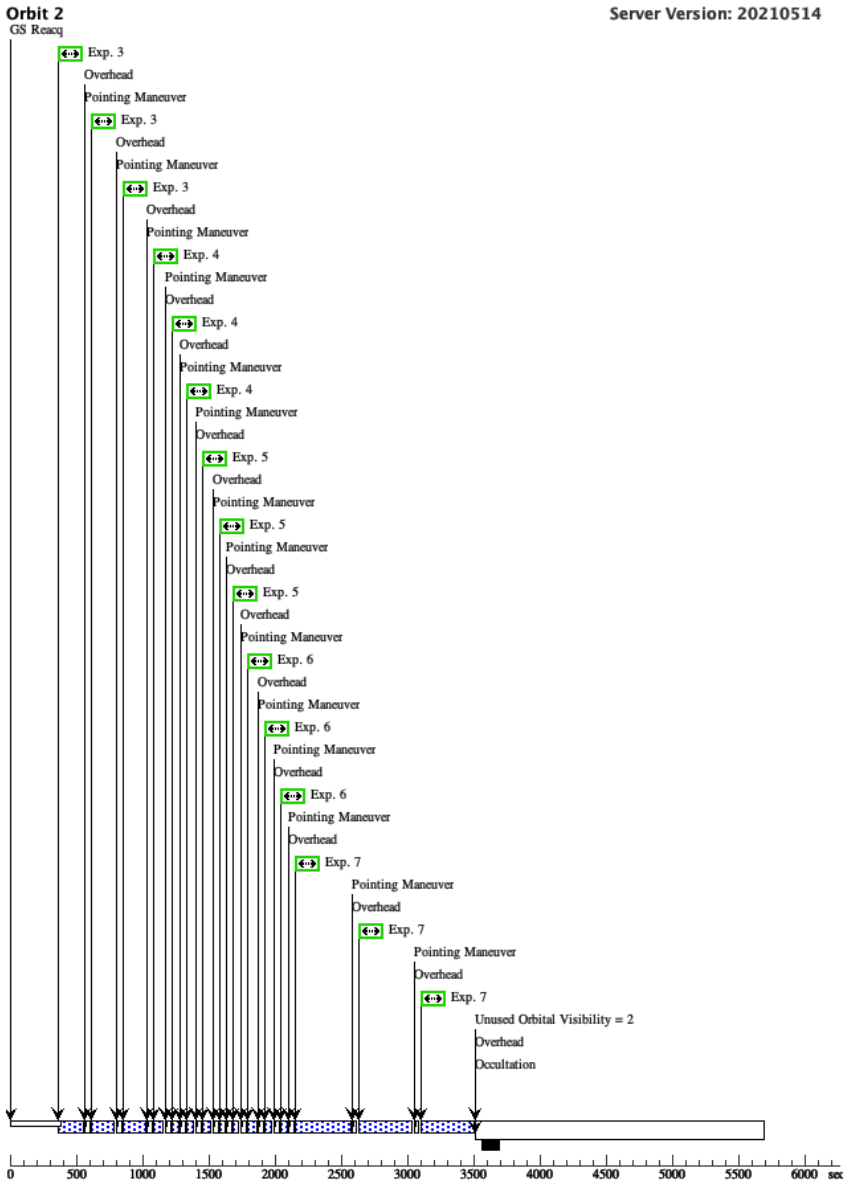
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(10) OTS-44	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 10	746 Secs (2238 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 10 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(10) OTS-44	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 10	184 Secs (552 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 10 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(10) OTS-44	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 10	169 Secs (507 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 10 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(10) OTS-44	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 10	51 Secs (153 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 10 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(10) OTS-44	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 10	41 Secs (123 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 10 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(10) OTS-44	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 10	51 Secs (153 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 10 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(10) OTS-44	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=19		Sequence 7-7 Non-Int in Visit 10	404 Secs (1212 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 10 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Unused Orbital Visibility = 2
Overhead
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 11, completed Tue Jan 18 14:00:51 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

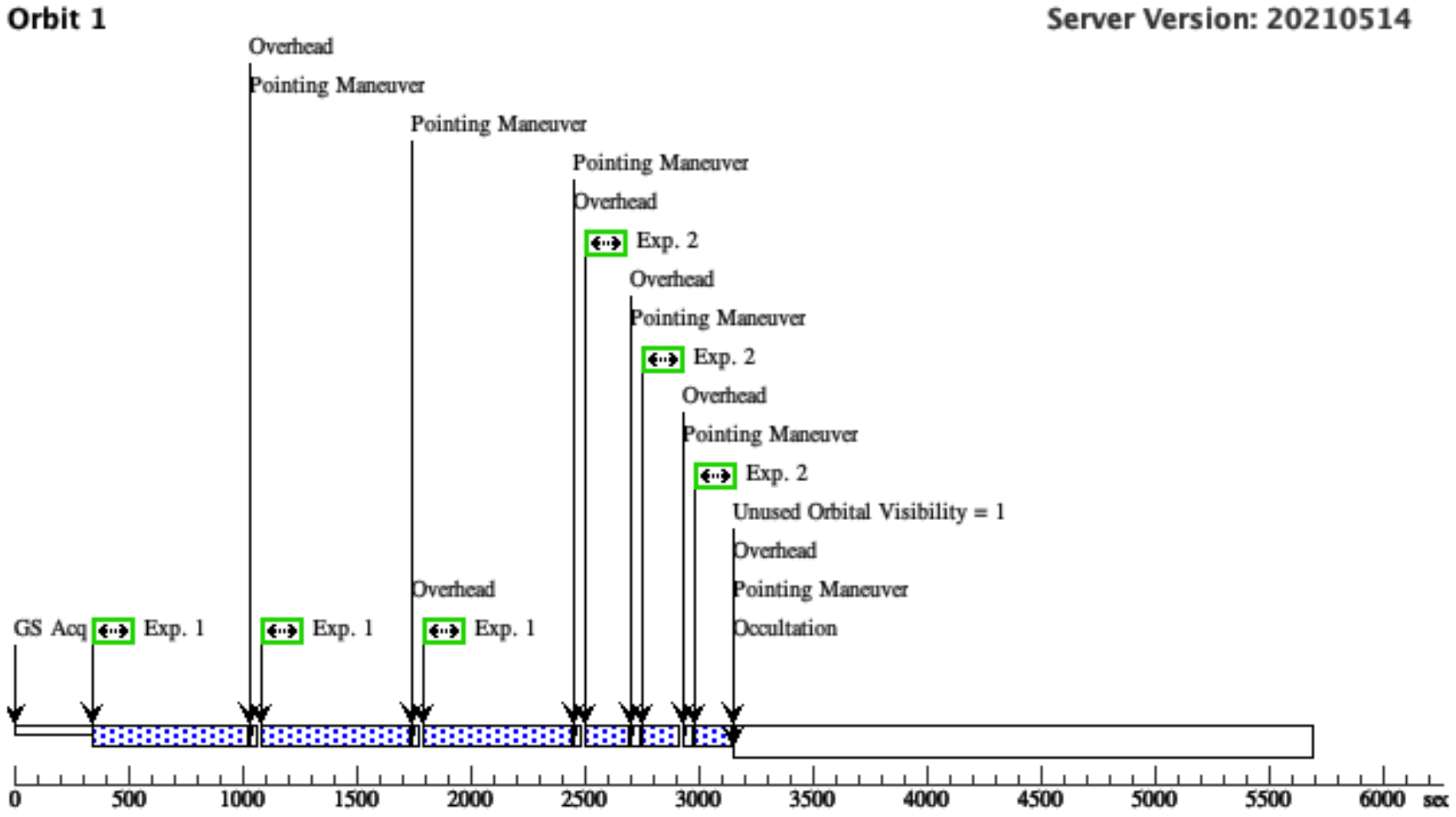
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	USCO-J1608-2315	RA: 16 08 28.4700 (242.1186250d) Dec: -23 15 10.70 (-23.25297d) Equinox: J2000		V=23	Reference Frame: ICRS

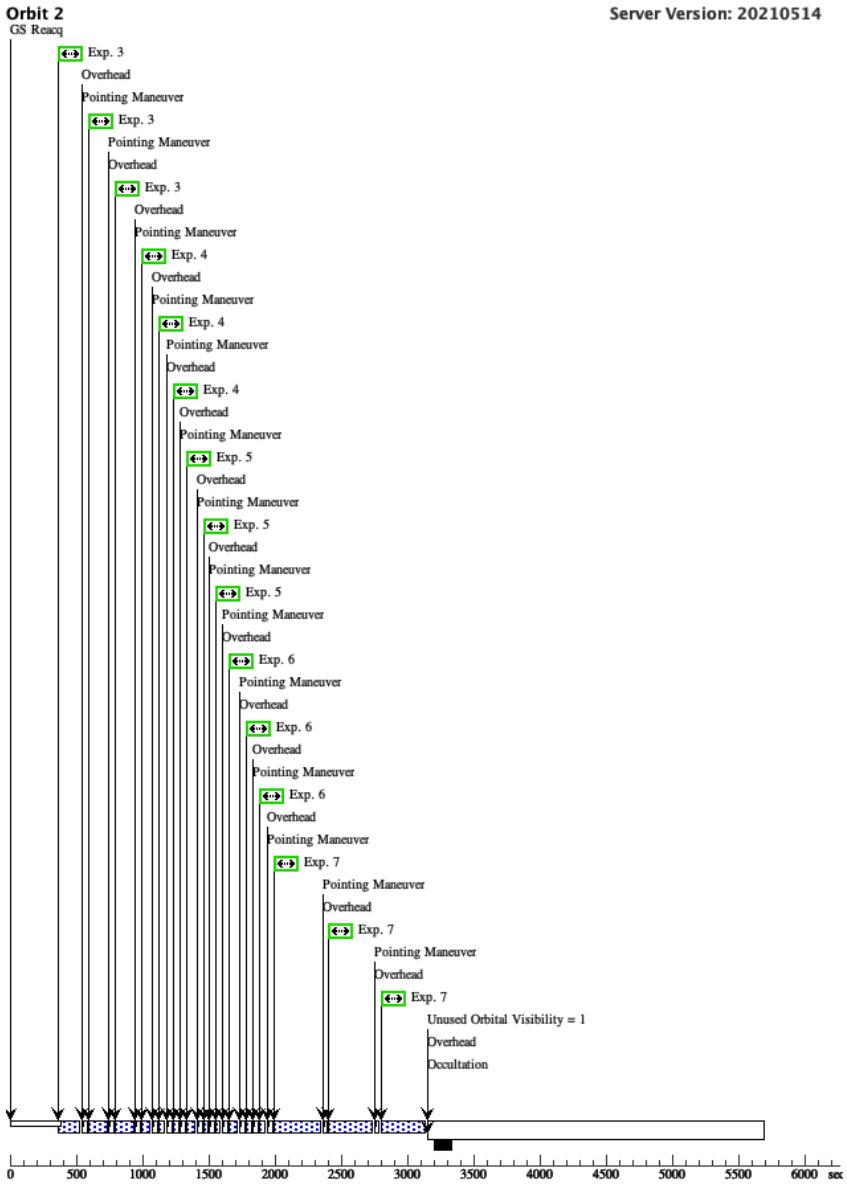
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) USCO-J1608-2315	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 11	648 Secs (1944 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(11) USCO-J1608-2315	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 11	161 Secs (483 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(11) USCO-J1608-2315	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 11	140 Secs (420 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(11) USCO-J1608-2315	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 11	42 Secs (126 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(11) USCO-J1608-2315	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 11	34 Secs (102 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(11) USCO-J1608-2315	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 11	42 Secs (126 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(11) USCO-J1608-2315	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 11	337 Secs (1011 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 11 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 4
Overhead
Pointing Maneuver
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Unused Orbital Visibility = 1
Overhead
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 12, completed Tue Jan 18 14:00:51 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

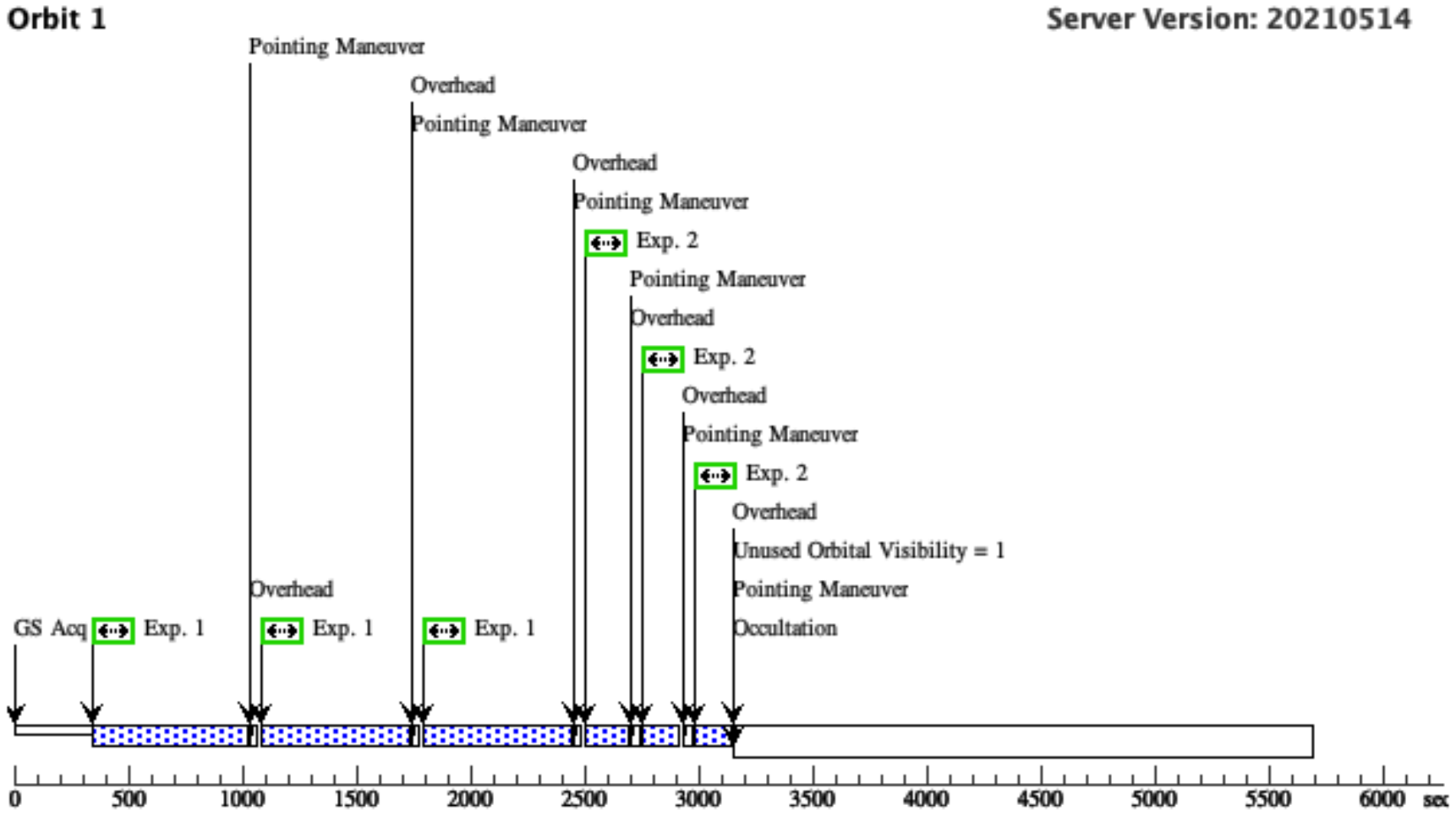
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	GY-141	RA: 16 26 51.2800 (246.7136667d) Dec: -24 32 42.40 (-24.54511d) Equinox: J2000		V=23	Reference Frame: ICRS

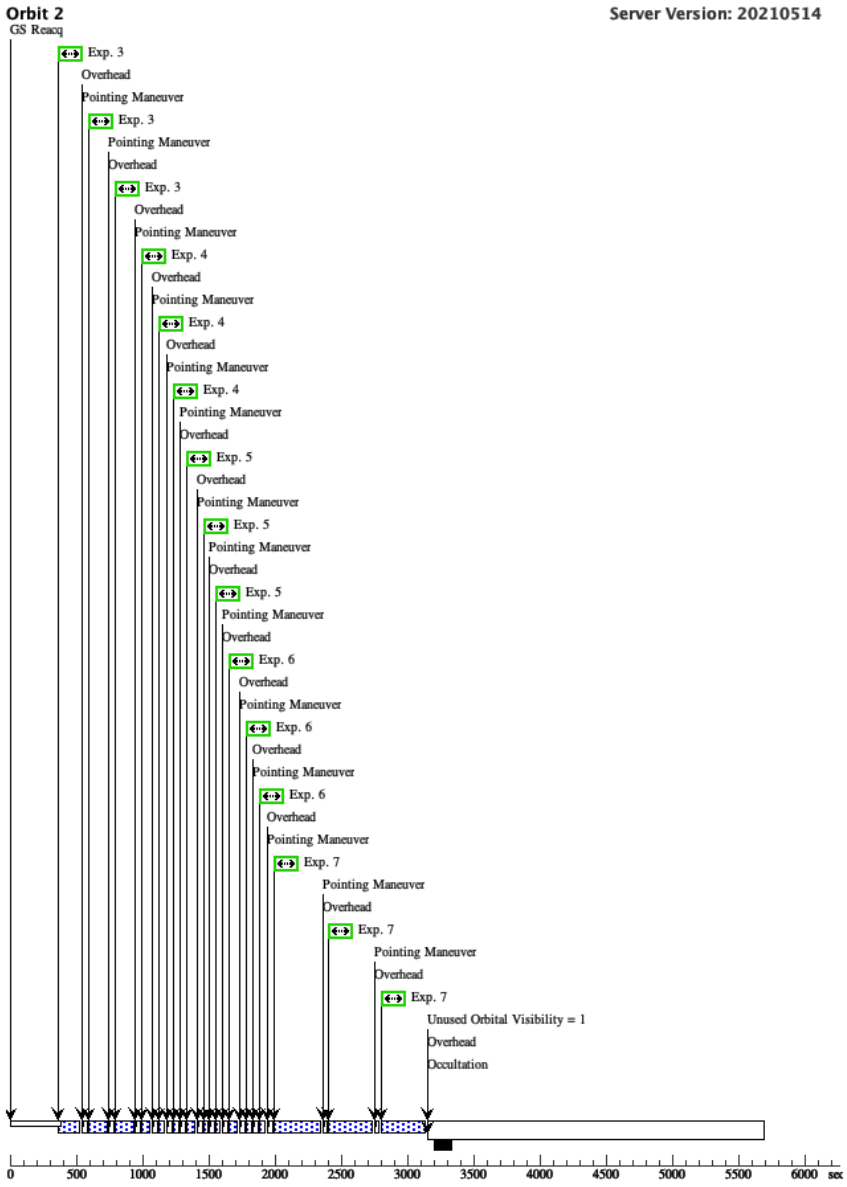
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(12) GY-141	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 12	648 Secs (1944 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 12 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(12) GY-141	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 12	161 Secs (483 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 12 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(12) GY-141	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 12	140 Secs (420 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 12 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(12) GY-141	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 12	42 Secs (126 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 12 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(12) GY-141	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 12	34 Secs (102 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 12 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(12) GY-141	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 12	42 Secs (126 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 12 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(12) GY-141	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 12	337 Secs (1011 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 12 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Pointing Maneuver
Overhead
Exp. 3
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Pointing Maneuver
Overhead
Exp. 7
Unused Orbital Visibility = 1
Overhead
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16302, Visit 13, completed Tue Jan 18 14:00:51 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: PCS MODE FINE

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7)

Fixed Targets

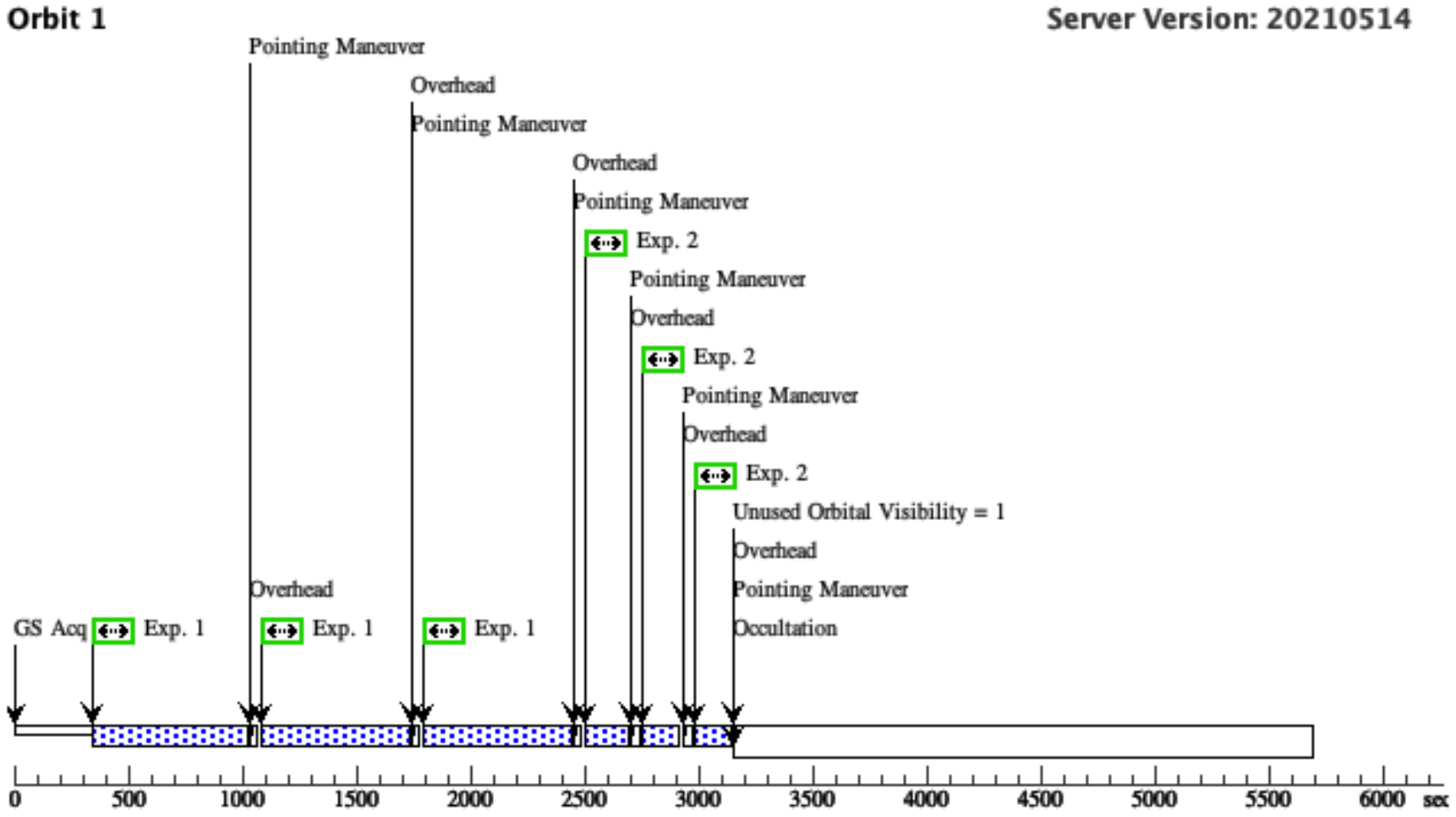
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	OPH-90	RA: 16 27 36.6100 (246.9025417d) Dec: -24 51 36.10 (-24.86003d) Equinox: J2000		V=23	Reference Frame: ICRS

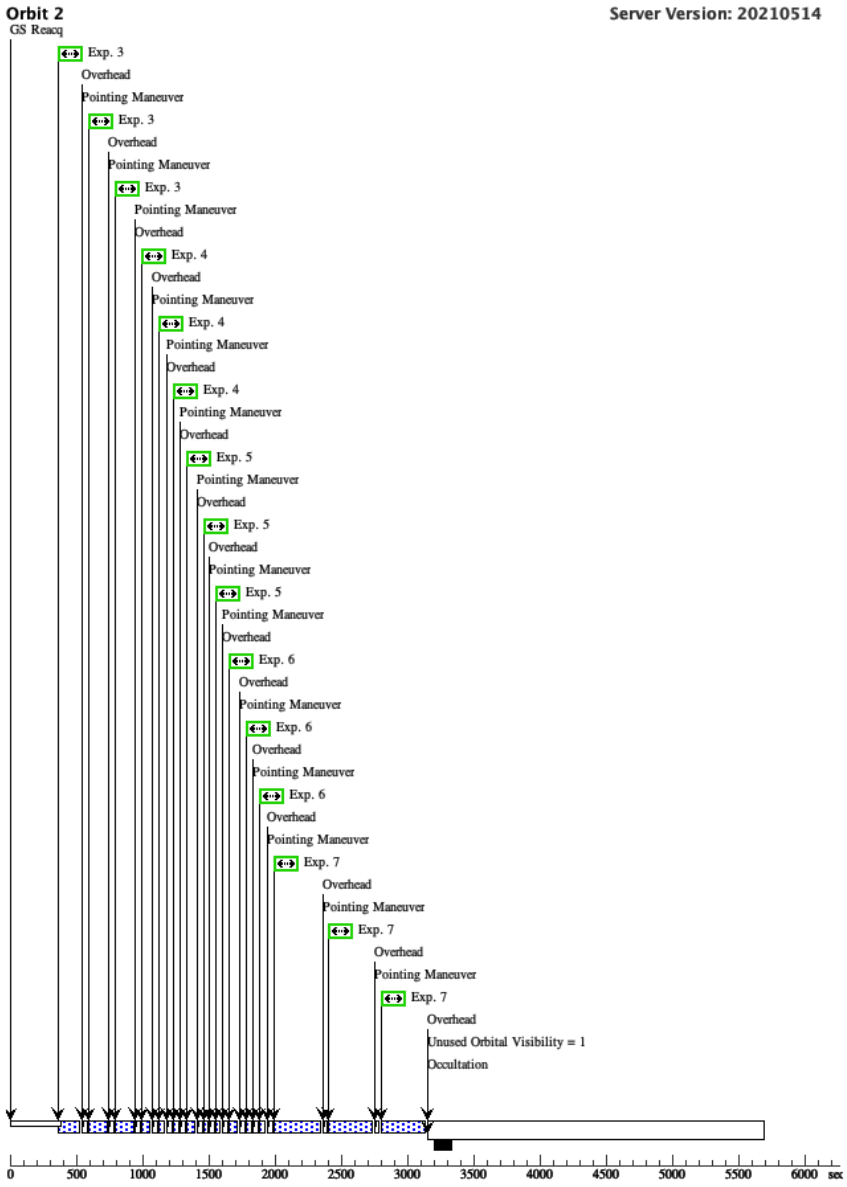
Comments:
Category=STAR
Description=[BROWN DWARF, EXTRA-SOLAR PLANET]
Extended=NO

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(13) OPH-90	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	FLASH=18		Sequence 1-1 Non-Int in Visit 13	648 Secs (1944 Secs)	
							Pattern 2, Exps 1-1 in Sequence 1-1 Non-Int in Visit 13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
2		(13) OPH-90	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F336W	FLASH=20		Sequence 2-2 Non-Int in Visit 13	161 Secs (483 Secs)	
							Pattern 2, Exps 2-2 in Sequence 2-2 Non-Int in Visit 13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[1]***
3		(13) OPH-90	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F438W	FLASH=19		Sequence 3-3 Non-Int in Visit 13	140 Secs (420 Secs)	
							Pattern 2, Exps 3-3 in Sequence 3-3 Non-Int in Visit 13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
4		(13) OPH-90	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F555W	FLASH=19		Sequence 4-4 Non-Int in Visit 13	42 Secs (126 Secs)	
							Pattern 2, Exps 4-4 in Sequence 4-4 Non-Int in Visit 13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
5		(13) OPH-90	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F625W	FLASH=19		Sequence 5-5 Non-Int in Visit 13	34 Secs (102 Secs)	
							Pattern 2, Exps 5-5 in Sequence 5-5 Non-Int in Visit 13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
6		(13) OPH-90	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F775W	FLASH=19		Sequence 6-6 Non-Int in Visit 13	42 Secs (126 Secs)	
							Pattern 2, Exps 6-6 in Sequence 6-6 Non-Int in Visit 13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***
7		(13) OPH-90	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=20		Sequence 7-7 Non-Int in Visit 13	337 Secs (1011 Secs)	
							Pattern 2, Exps 7-7 in Sequence 7-7 Non-Int in Visit 13 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Overhead
Pointing Maneuver
Exp. 3
Pointing Maneuver
Overhead
Exp. 4
Overhead
Pointing Maneuver
Exp. 4
Pointing Maneuver
Overhead
Exp. 4
Pointing Maneuver
Overhead
Exp. 5
Pointing Maneuver
Overhead
Exp. 5
Overhead
Pointing Maneuver
Exp. 5
Pointing Maneuver
Overhead
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 6
Overhead
Pointing Maneuver
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Overhead
Pointing Maneuver
Exp. 7
Overhead
Unused Orbital Visibility = 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec