



## 12507 - The Formation and Fundamental Properties of Wide Planetary-Mass

### Companions

Cycle: 19, Proposal Category: GO

(Availability Mode: SUPPORTED)

#### INVESTIGATORS

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#### VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
16	(12) GQLUP	WFC3/UVIS	1	11-Jul-2011 22:18:28.0	yes
17	(8) HR7329	WFC3/UVIS	1	11-Jul-2011 22:18:44.0	yes
18	(9) PDS70	WFC3/UVIS	1	11-Jul-2011 22:18:56.0	yes
19	(11) GSC8047	WFC3/UVIS	2	11-Jul-2011 22:19:12.0	yes
20	(2) DHTAU	WFC3/UVIS	2	11-Jul-2011 22:19:25.0	yes
21	(4) GSC6214-210	WFC3/UVIS	3	11-Jul-2011 22:19:39.0	yes
22	(10) ABPIC	WFC3/UVIS	3	11-Jul-2011 22:19:53.0	yes
23	(5) 1RXSJ1609	WFC3/UVIS	3	11-Jul-2011 22:20:07.0	yes
24	(3) FWTAU	WFC3/UVIS	3	11-Jul-2011 22:20:19.0	yes
14	(1) 2M1207	WFC3/UVIS	4	11-Jul-2011 22:20:30.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
13	(6) CHXR73	WFC3/UVIS	1	11-Jul-2011 22:20:36.0	yes
15	(7) CTCHA	WFC3/UVIS	1	11-Jul-2011 22:20:41.0	yes

25 Total Orbits Used

### **ABSTRACT**

Over the past five years, direct imaging surveys for extrasolar planets have discovered a small but significant number of planetary-mass companions at separations  $>50$  AU from their host stars. These wide companions pose a significant challenge to models of planet formation and of substellar atmospheres and evolution, and there are still many puzzling questions regarding their formation and fundamental properties. To address these open topics, we propose a WFC3 optical imaging survey for 25 orbits to study 12 planetary-mass companions. Our survey has three goals: 1) to use UVB and narrowband H $\alpha$  photometry to determine if (and how much) these companions are accreting out of circumplanetary disks, 2) to use broadband optical photometry to measure their temperatures and luminosities by estimating their optical spectral types, and 3) to exploit the stable HST PSF to test whether any of the companions are marginally resolved binary pairs. None of these goals can be pursued from the ground, where high-resolution observing techniques are limited to near-infrared wavelengths and yield less stable PSFs.

### **OBSERVING DESCRIPTION**

The goal of this proposal is to obtain multicolor images for faint (apparently planetary mass) companions to nearby young stars. They have projected separations of 0.7-5.0 arcseconds and contrasts of 5-10 magnitudes in the NIR, so the contrasts in the optical will likely be larger. In almost all cases, the primary star is expected to saturate, but this should not affect the companion. We have chosen to observe at 2 dither positions for most targets, using a CR-Split for any observation of  $\sim 700$ s or longer. However, we also observe most targets in F775W or F850LP (whichever is brightest) using 4 dither positions, to allow superior subsampling and retrieval of as much PSF information as possible.

### **REAL TIME JUSTIFICATION**

None

### **CALIBRATION JUSTIFICATION**

None

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Tue Jul 12 02:20:46 GMT 2011

Visit	Proposal 12507, Visit 16					
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
Patterns	#	Primary Pattern	Secondary Pattern	Exposures		
	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7), (8)	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(9)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(12)	GQLUP	RA: 15 49 12.1440 (237.3006000d) Dec: -35 39 3.95 (-35.65110d) Equinox: J2000		V=11.4+/-0.1 Companion: K=13.4, J=14.9, z~17.0, i~18.7, r~21.5, g~23.4, u~25.2	Reference Frame: ICRS

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Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 1-1 i n Visit 16 (1)	10 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 16 (1)	10 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO		Pattern 1, Exps 3-3 i n Visit 16 (1)	15 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO		Pattern 1, Exps 4-4 i n Visit 16 (1)	20 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=NO		Pattern 1, Exps 5-5 i n Visit 16 (1)	25 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F336W	CR-SPLIT=NO		Pattern 1, Exps 6-6 i n Visit 16 (1)	200 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=NO		Pattern 1, Exps 7-7 i n Visit 16 (1)	125 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F673N	CR-SPLIT=NO		Pattern 1, Exps 8-8 i n Visit 16 (1)	80 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	(12) GQLUP	(12) GQLUP	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W			Pattern 2, Exps 9-9 i n Visit 16 (2)	10 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



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Visit	<b>Proposal 12507, Visit 17</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7), (8)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(9)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(8)	HR7329	RA: 19 22 51.2062 (290.7133592d) Dec: -54 25 26.15 (-54.42393d) Equinox: J2000		V=5.03+/-0.1 Companion: K=12.3, J~13.4, z~15.4, i~16.8, r~19.4, g~21.1, u~22.9	Reference Frame: ICRS

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Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO	Pattern 1, Exps 1-1 i n Visit 17 (1)	10 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	2	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO	Pattern 1, Exps 2-2 i n Visit 17 (1)	20 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	3	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO	Pattern 1, Exps 3-3 i n Visit 17 (1)	30 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	4	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO	Pattern 1, Exps 4-4 i n Visit 17 (1)	40 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	5	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=NO	Pattern 1, Exps 5-5 i n Visit 17 (1)	60 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	6	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F336W	CR-SPLIT=NO	Pattern 1, Exps 6-6 i n Visit 17 (1)	115 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	7	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=NO	Pattern 1, Exps 7-7 i n Visit 17 (1)	180 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	8	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F673N	CR-SPLIT=NO	Pattern 1, Exps 8-8 i n Visit 17 (1)	90 Secs	[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	9	(8) HR7329	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W		Pattern 2, Exps 9-9 i n Visit 17 (2)	15 Secs	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	



Proposal 12507 - Visit 18 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

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Visit	<b>Proposal 12507, Visit 18</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7), (8)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(9)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(9)	PDS70	RA: 14 08 10.3000 (212.0429167d) Dec: -41 23 53.00 (-41.39806d) Equinox: J2000		V=12.1+/-0.1 Companion: K=13.3, J~14.6, z~16.7, i~18.4, r~21.3, g~23.3, u~25.3	Reference Frame: ICRS

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Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 1-1 i n Visit 18 (1)	10 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 18 (1)	15 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO		Pattern 1, Exps 3-3 i n Visit 18 (1)	20 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO		Pattern 1, Exps 4-4 i n Visit 18 (1)	25 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=NO		Pattern 1, Exps 5-5 i n Visit 18 (1)	40 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F336W	CR-SPLIT=NO		Pattern 1, Exps 6-6 i n Visit 18 (1)	150 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=NO		Pattern 1, Exps 7-7 i n Visit 18 (1)	180 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F673N	CR-SPLIT=NO		Pattern 1, Exps 8-8 i n Visit 18 (1)	60 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9		(9) PDS70	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W			Pattern 2, Exps 9-9 i n Visit 18 (2)	10 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12507 - Visit 19 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

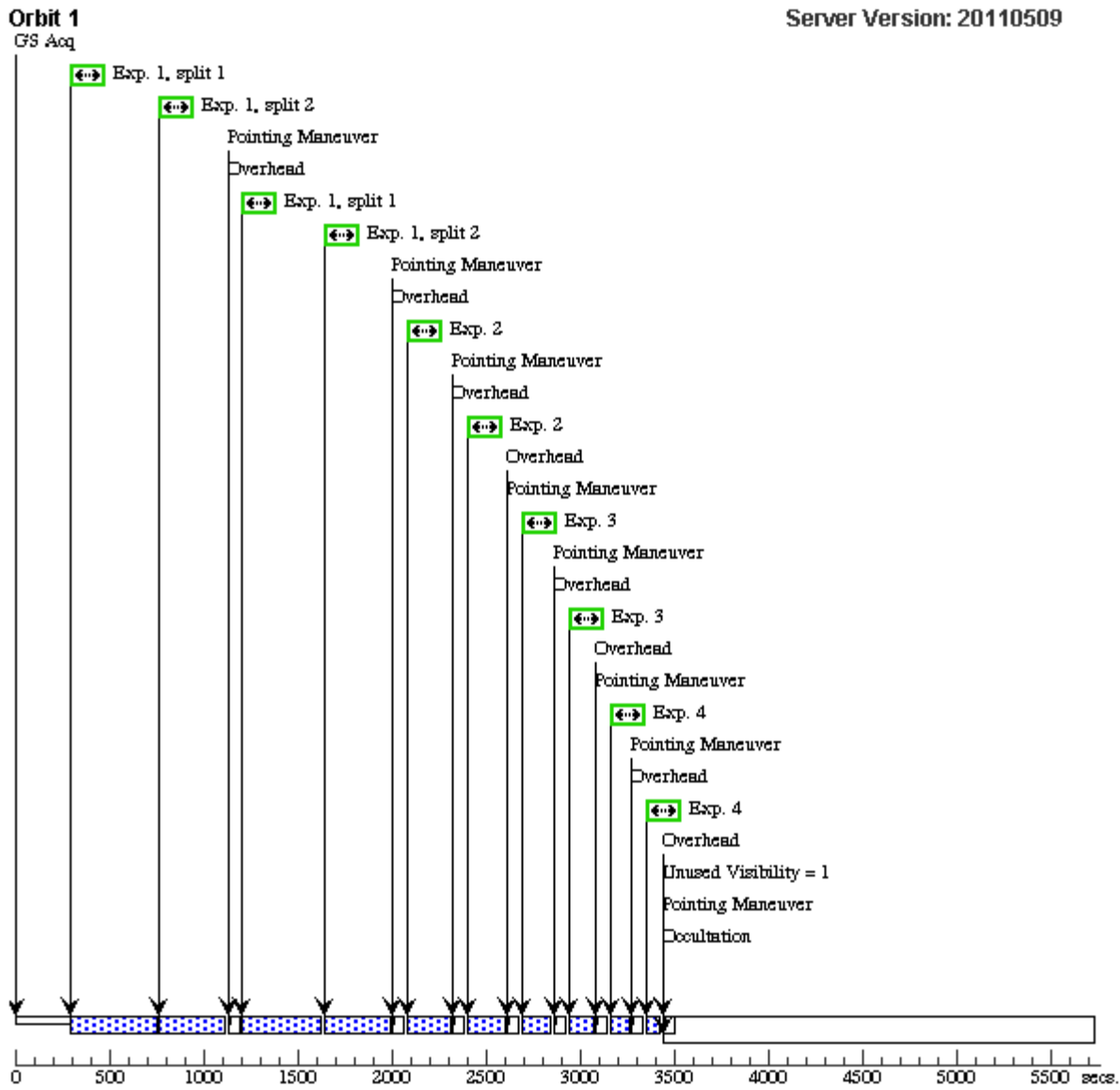
Tue Jul 12 02:20:50 GMT 2011

Visit	<b>Proposal 12507, Visit 19</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false	(1), (2), (3), (4), (5), (6), (7), (8)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	(9)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(11)	GSC8047	RA: 01 52 14.6270 (28.0609458d) Dec: -52 19 33.06 (-52.32585d) Equinox: J2000		V=10.9+/-0.1 Companion: K=14.8, J=15.9, z~18.1, i~19.9, r~22.6, g~24.7, u~26.3	Reference Frame: ICRS

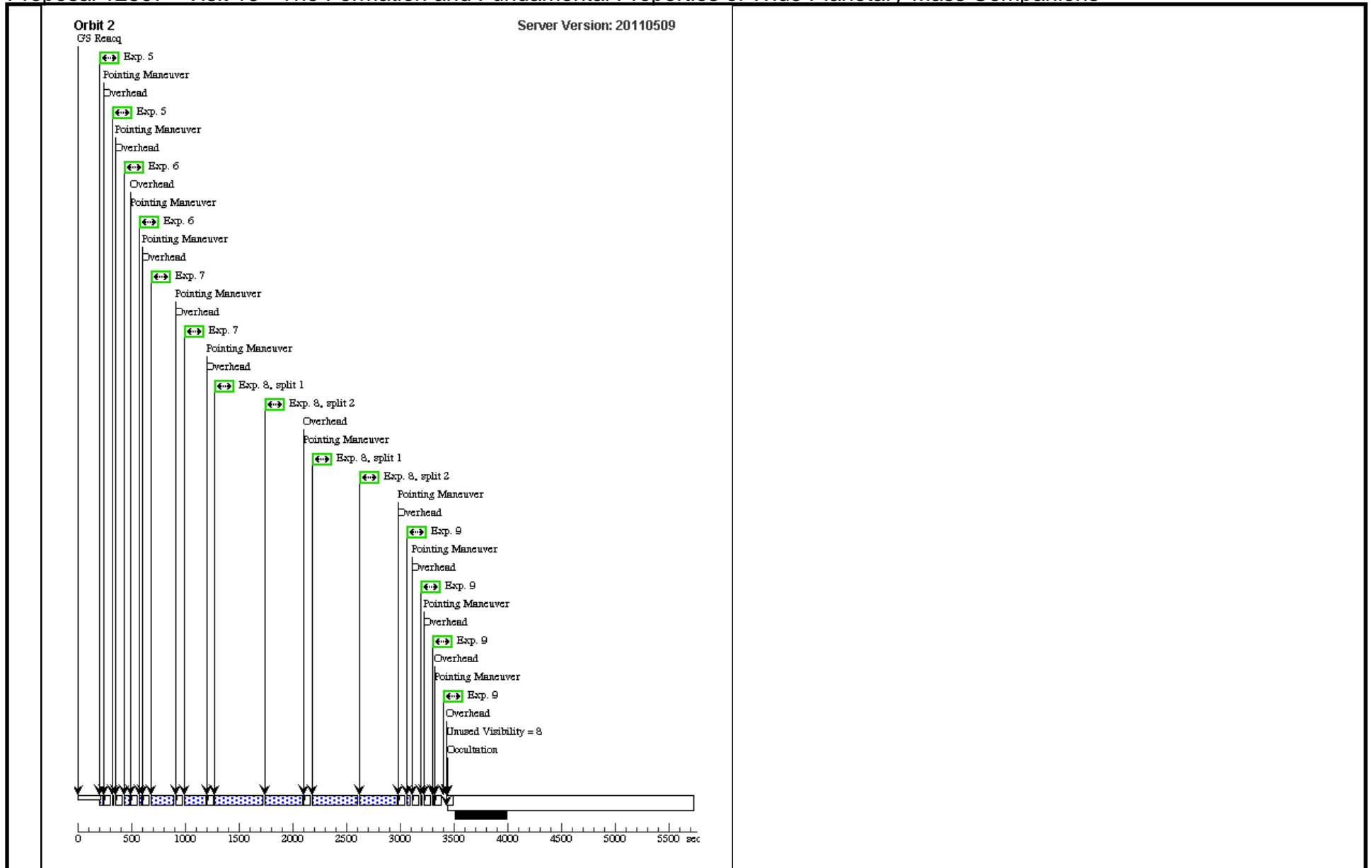
Proposal 12507 - Visit 19 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
Exposures	1	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=2		Pattern 1, Exps 1-1 in Visit 19 (1)	700 Secs [=>(Pattern 1, Split 1)] [=>(Pattern 1, Split 2)] [=>(Pattern 2, Split 1)] [=>(Pattern 2, Split 2)]	[1]
	2	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=NO		Pattern 1, Exps 2-2 in Visit 19 (1)	200 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO		Pattern 1, Exps 3-3 in Visit 19 (1)	130 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO		Pattern 1, Exps 4-4 in Visit 19 (1)	75 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 5-5 in Visit 19 (1)	15 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[2]
	6	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO		Pattern 1, Exps 6-6 in Visit 19 (1)	20 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[2]
	7	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F673N	CR-SPLIT=NO		Pattern 1, Exps 7-7 in Visit 19 (1)	200 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[2]
	8	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F336W	CR-SPLIT=2		Pattern 1, Exps 8-8 in Visit 19 (1)	700 Secs [=>(Pattern 1, Split 1)] [=>(Pattern 1, Split 2)] [=>(Pattern 2, Split 1)] [=>(Pattern 2, Split 2)]	[2]
	9	(11) GSC8047	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W			Pattern 2, Exps 9-9 in Visit 19 (2)	15 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]

Orbit Structure



Proposal 12507 - Visit 19 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions



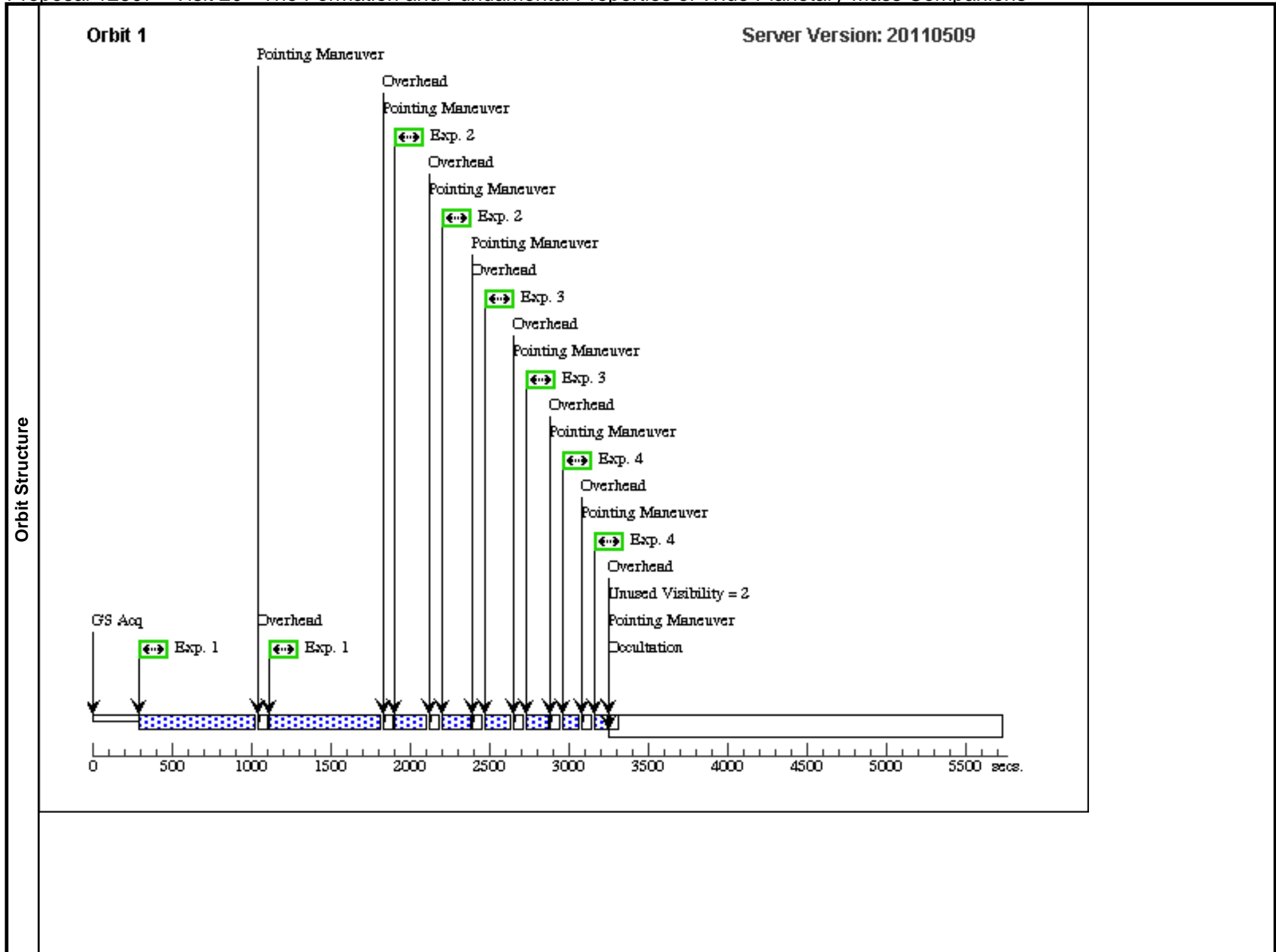
Proposal 12507 - Visit 20 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

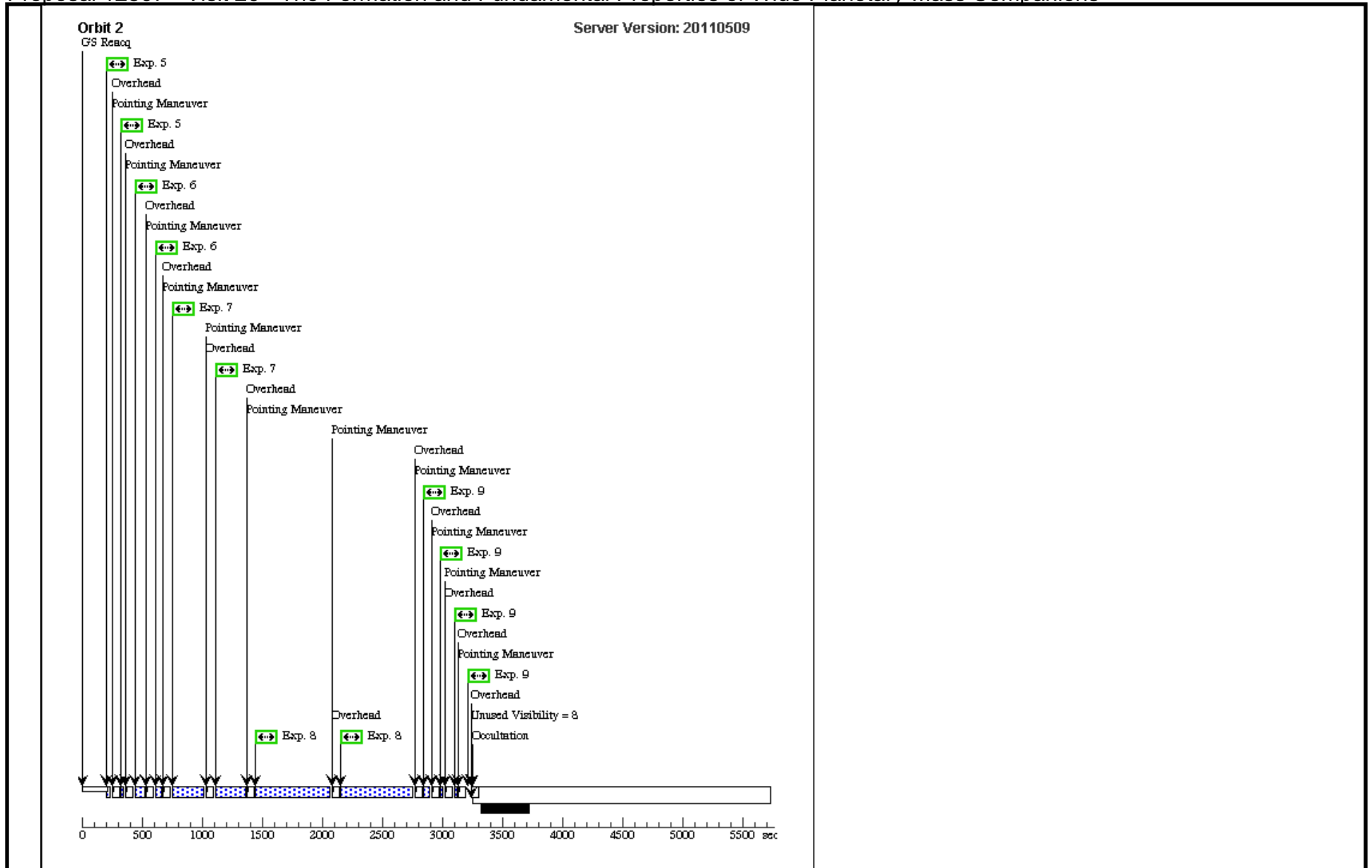
Tue Jul 12 02:20:51 GMT 2011

Visit	<b>Proposal 12507, Visit 20</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7), (8)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(9)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	DHTAU	RA: 04 29 41.5600 (67.4231667d) Dec: +26 32 58.30 (26.54953d) Equinox: J2000		V=13.7+/-0.3 Companion: K=14.2, J=15.7, z~17.9, i~19.6, r~22.3, g~24.4, u~26.7	Reference Frame: ICRS

Proposal 12507 - Visit 20 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F336W	CR-SPLIT=NO		Pattern 1, Exps 1-1 i n Visit 20 (1)	700 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 20 (1)	180 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO		Pattern 1, Exps 3-3 i n Visit 20 (1)	140 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO		Pattern 1, Exps 4-4 i n Visit 20 (1)	80 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 5-5 i n Visit 20 (1)	20 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	6		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO		Pattern 1, Exps 6-6 i n Visit 20 (1)	50 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F673N	CR-SPLIT=NO		Pattern 1, Exps 7-7 i n Visit 20 (1)	250 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	8		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=NO		Pattern 1, Exps 8-8 i n Visit 20 (1)	600 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	9		(2) DHTAU	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W			Pattern 2, Exps 9-9 i n Visit 20 (2)	20 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]





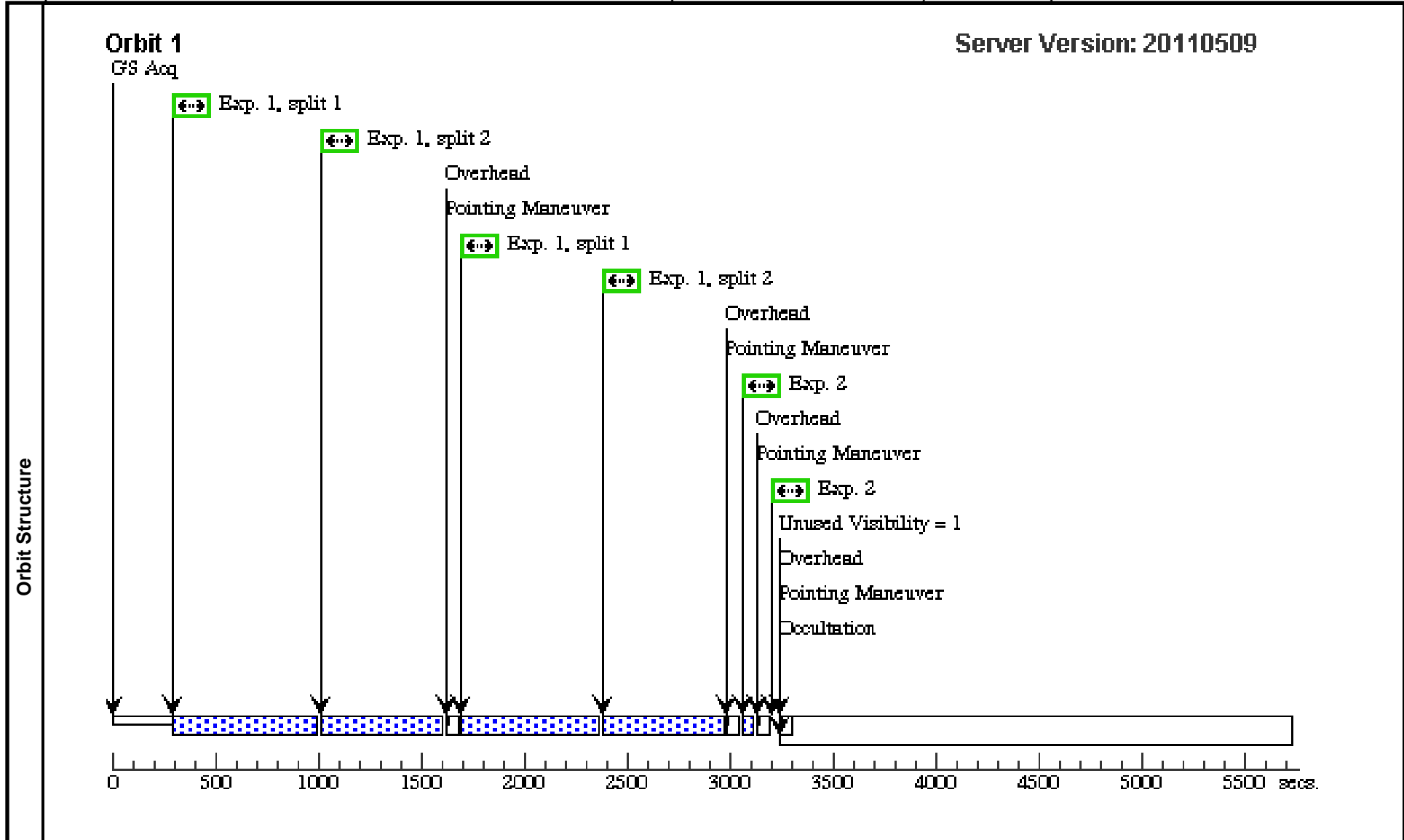
Proposal 12507 - Visit 21 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

Tue Jul 12 02:20:52 GMT 2011

Visit	<b>Proposal 12507, Visit 21</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
(1)		Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7), (8)	
(2)		Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(9)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(4)	GSC6214-210	RA: 16 21 54.6700 (245.4777917d) Dec: -20 43 9.10 (-20.71919d) Equinox: J2000		V=11.5+/-0.3 Companion: K=15.0, J~16.3, z~18.6, i~20.4, r~23, g~25.5, u~26.9	Reference Frame: ICRS

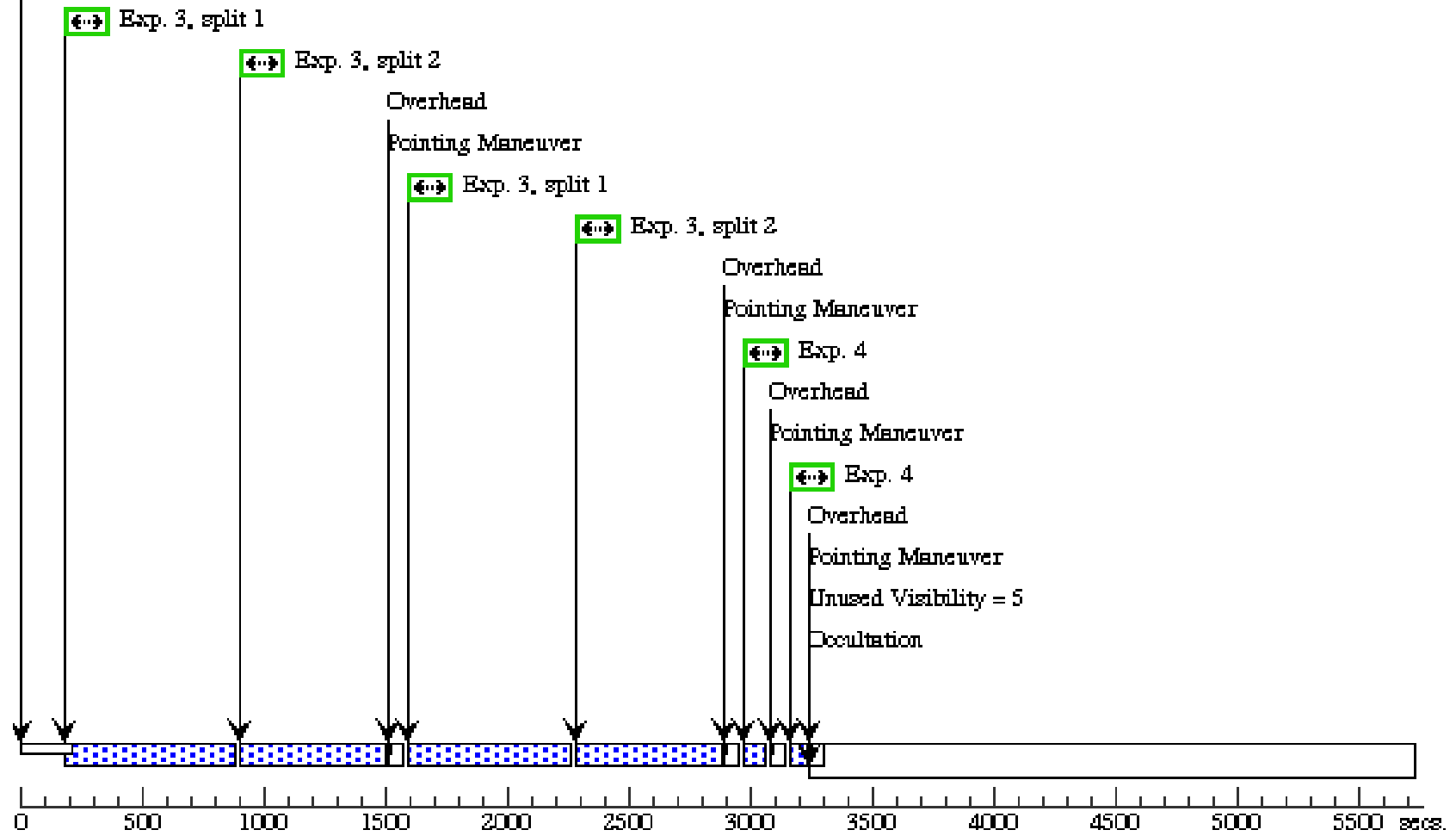
Proposal 12507 - Visit 21 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

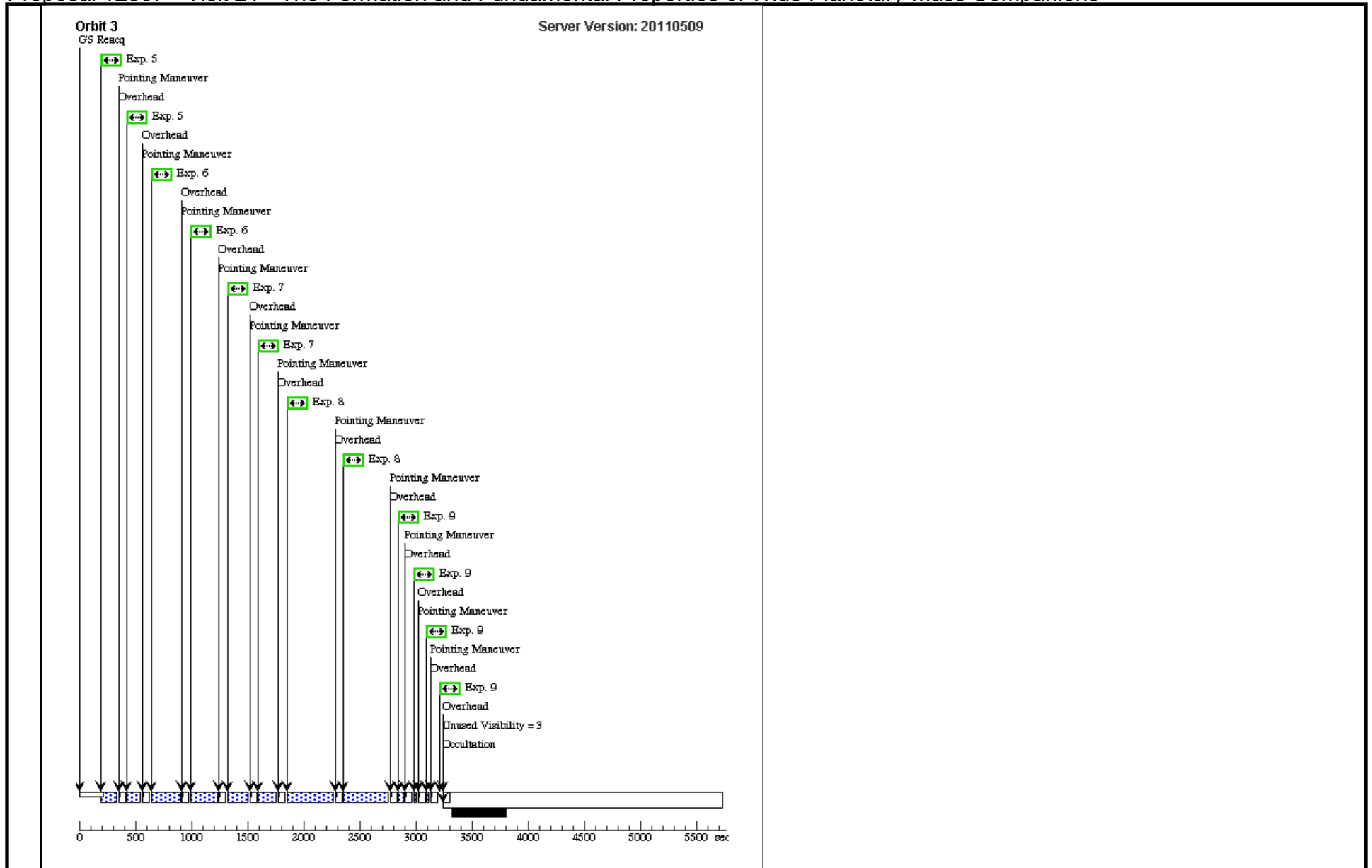
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=2		Pattern 1, Exps 1-1 i n Visit 21 (1)	1190 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[1]
	2		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 21 (1)	25 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F336W	CR-SPLIT=2		Pattern 1, Exps 3-3 i n Visit 21 (1)	1200 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[2]
	4		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO		Pattern 1, Exps 4-4 i n Visit 21 (1)	70 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	5		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO		Pattern 1, Exps 5-5 i n Visit 21 (1)	120 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	6		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=NO		Pattern 1, Exps 6-6 i n Visit 21 (1)	240 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	7		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO		Pattern 1, Exps 7-7 i n Visit 21 (1)	160 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	8		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F673N	CR-SPLIT=NO		Pattern 1, Exps 8-8 i n Visit 21 (1)	400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	9		(4) GSC6214-210	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W			Pattern 2, Exps 9-9 i n Visit 21 (2)	20 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[3]



Orbit 2

GS Req





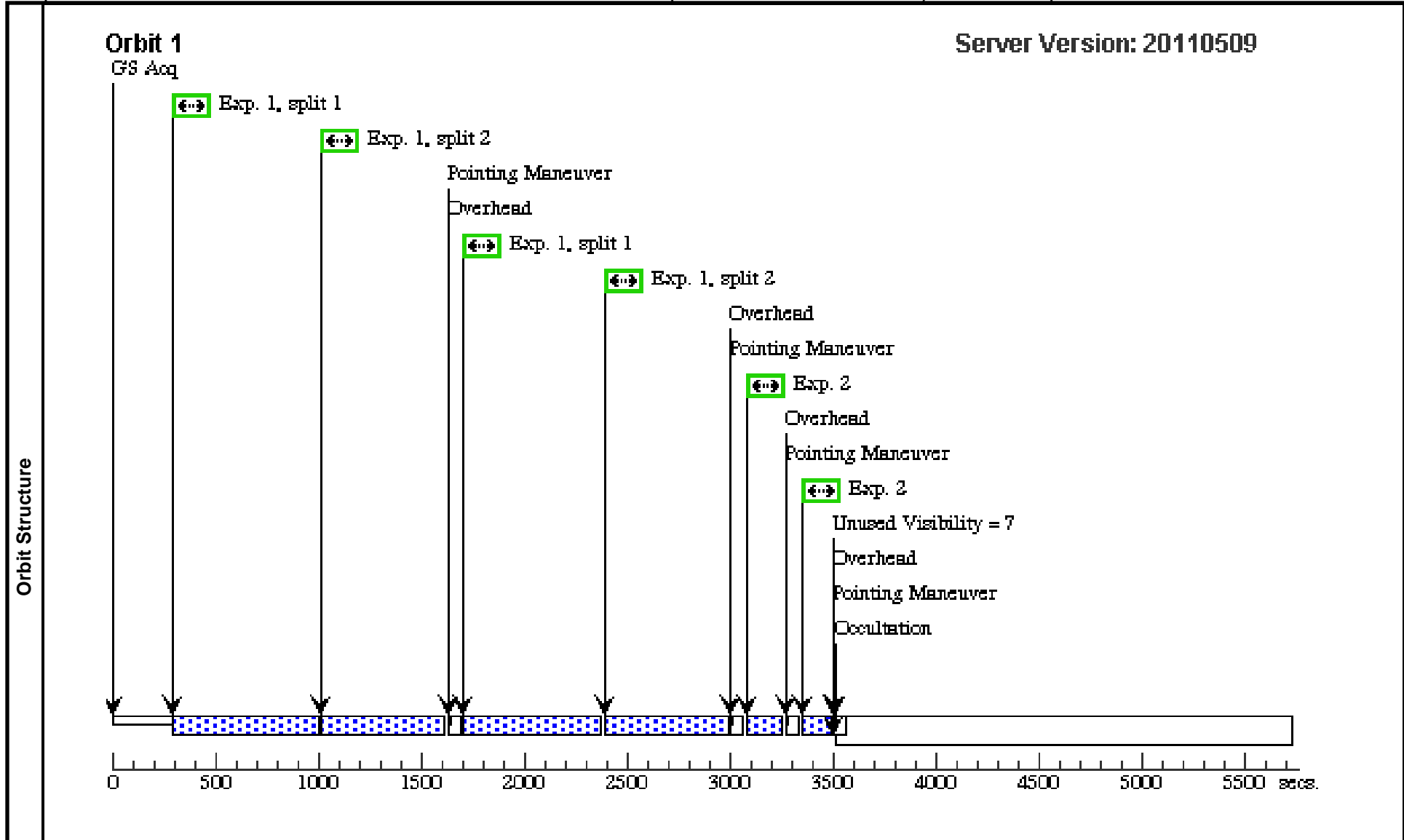
Proposal 12507 - Visit 22 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

Tue Jul 12 02:20:53 GMT 2011

Visit	<b>Proposal 12507, Visit 22</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6), (7), (8)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(9)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(10)	ABPIC	RA: 06 19 12.9130 (94.8038042d) Dec: -58 03 15.52 (-58.05431d) Equinox: J2000		V=9.2+/-0.1 Companion: K=14.1, J=16.2, z~18.4, i~20.3, r~22.9, g~25.4, u~26.8	Reference Frame: ICRS

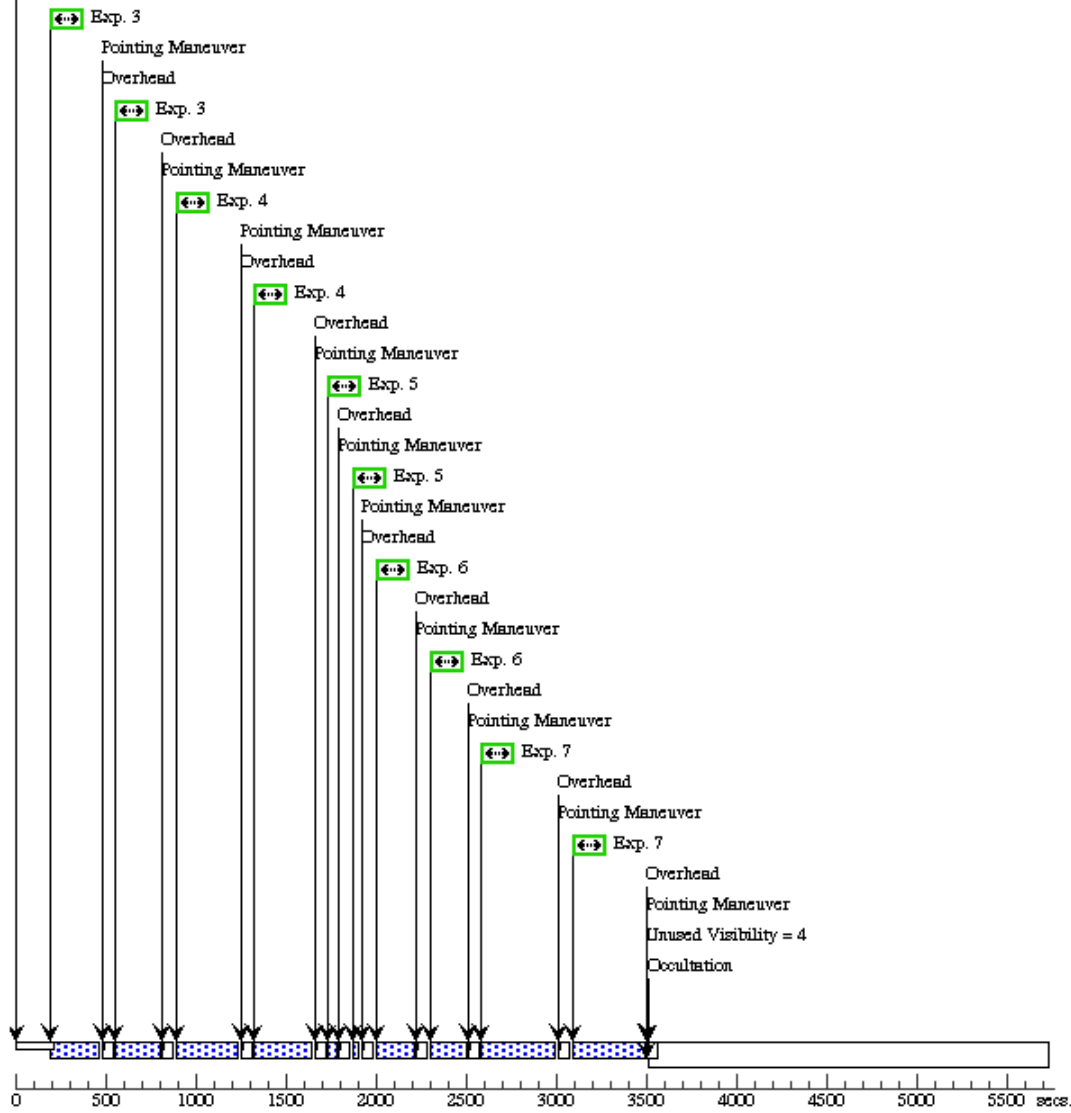
Proposal 12507 - Visit 22 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

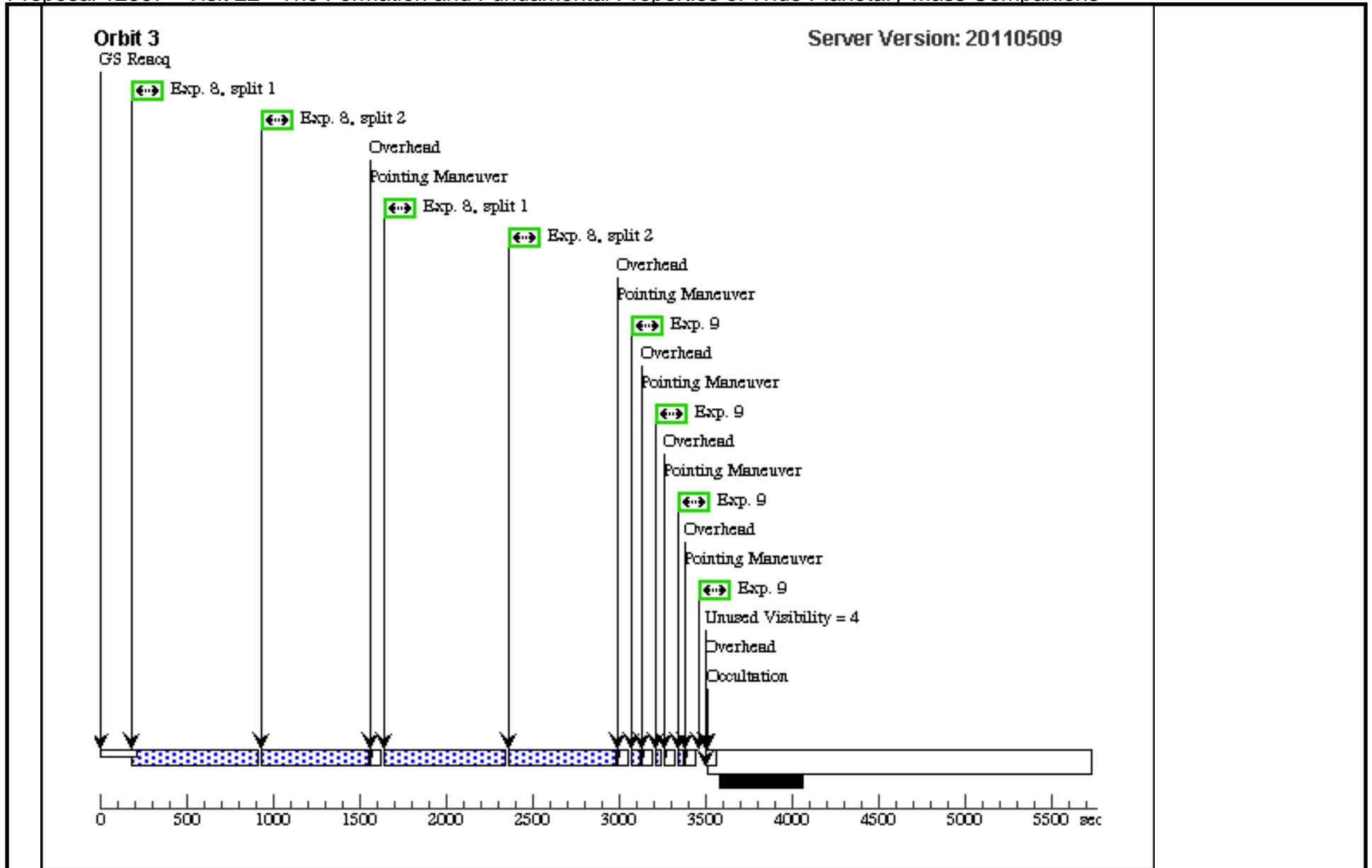
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=2	Pattern 1, Exps 1-1 in Visit 22 (1)	1200 Secs	[=>(Pattern 1, Split 1)] [=>(Pattern 1, Split 2)] [=>(Pattern 2, Split 1)] [=>(Pattern 2, Split 2)]	[1]	
	2	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO	Pattern 1, Exps 2-2 in Visit 22 (1)	140 Secs	[=>(Pattern 1)] [=>(Pattern 2)]	[1]	
	3	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO	Pattern 1, Exps 3-3 in Visit 22 (1)	250 Secs	[=>(Pattern 1)] [=>(Pattern 2)]	[2]	
	4	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=NO	Pattern 1, Exps 4-4 in Visit 22 (1)	320 Secs	[=>(Pattern 1)] [=>(Pattern 2)]	[2]	
	5	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO	Pattern 1, Exps 5-5 in Visit 22 (1)	30 Secs	[=>(Pattern 1)] [=>(Pattern 2)]	[2]	
	6	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO	Pattern 1, Exps 6-6 in Visit 22 (1)	200 Secs	[=>(Pattern 1)] [=>(Pattern 2)]	[2]	
	7	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F673N	CR-SPLIT=NO	Pattern 1, Exps 7-7 in Visit 22 (1)	400 Secs	[=>(Pattern 1)] [=>(Pattern 2)]	[2]	
	8	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F336W	CR-SPLIT=2	Pattern 1, Exps 8-8 in Visit 22 (1)	1250 Secs	[=>(Pattern 1, Split 1)] [=>(Pattern 1, Split 2)] [=>(Pattern 2, Split 1)] [=>(Pattern 2, Split 2)]	[3]	
	9	(10) ABPIC	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W		Pattern 2, Exps 9-9 in Visit 22 (2)	30 Secs	[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[3]	



Server Version: 20110509

Orbit 2  
GS Reacq





Proposal 12507 - Visit 23 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

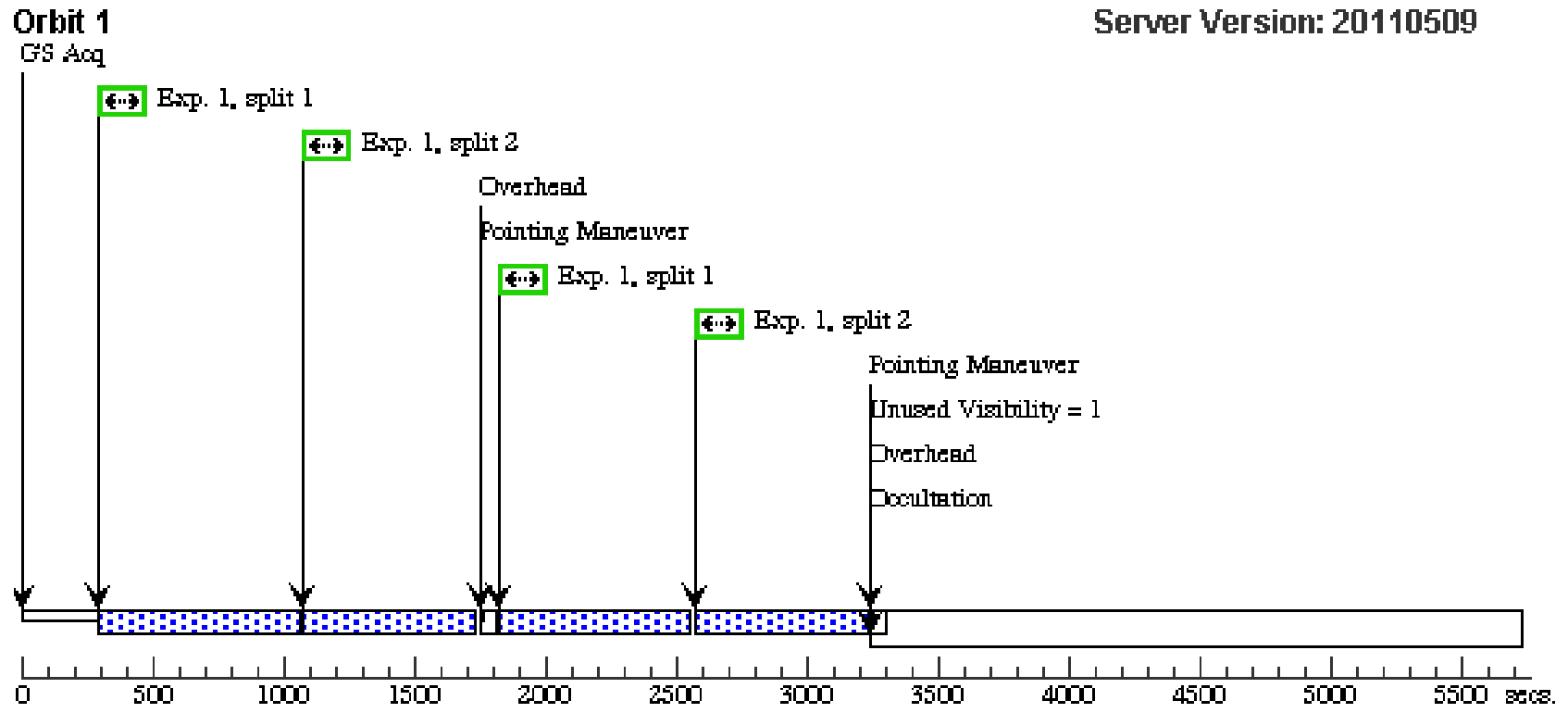
Tue Jul 12 02:20:54 GMT 2011

Visit	<b>Proposal 12507, Visit 23</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3), (4), (5), (6)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(7)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	1RXSJ1609	RA: 16 09 30.3000 (242.3762500d) Dec: -21 04 58.90 (-21.08303d) Equinox: J2000		V=12.3+/-0.3 Companion: K=16.2, J=17.9, z~20.2, i~22.0, r~24.6, g~27.1, u~28.5	Reference Frame: ICRS

Proposal 12507 - Visit 23 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

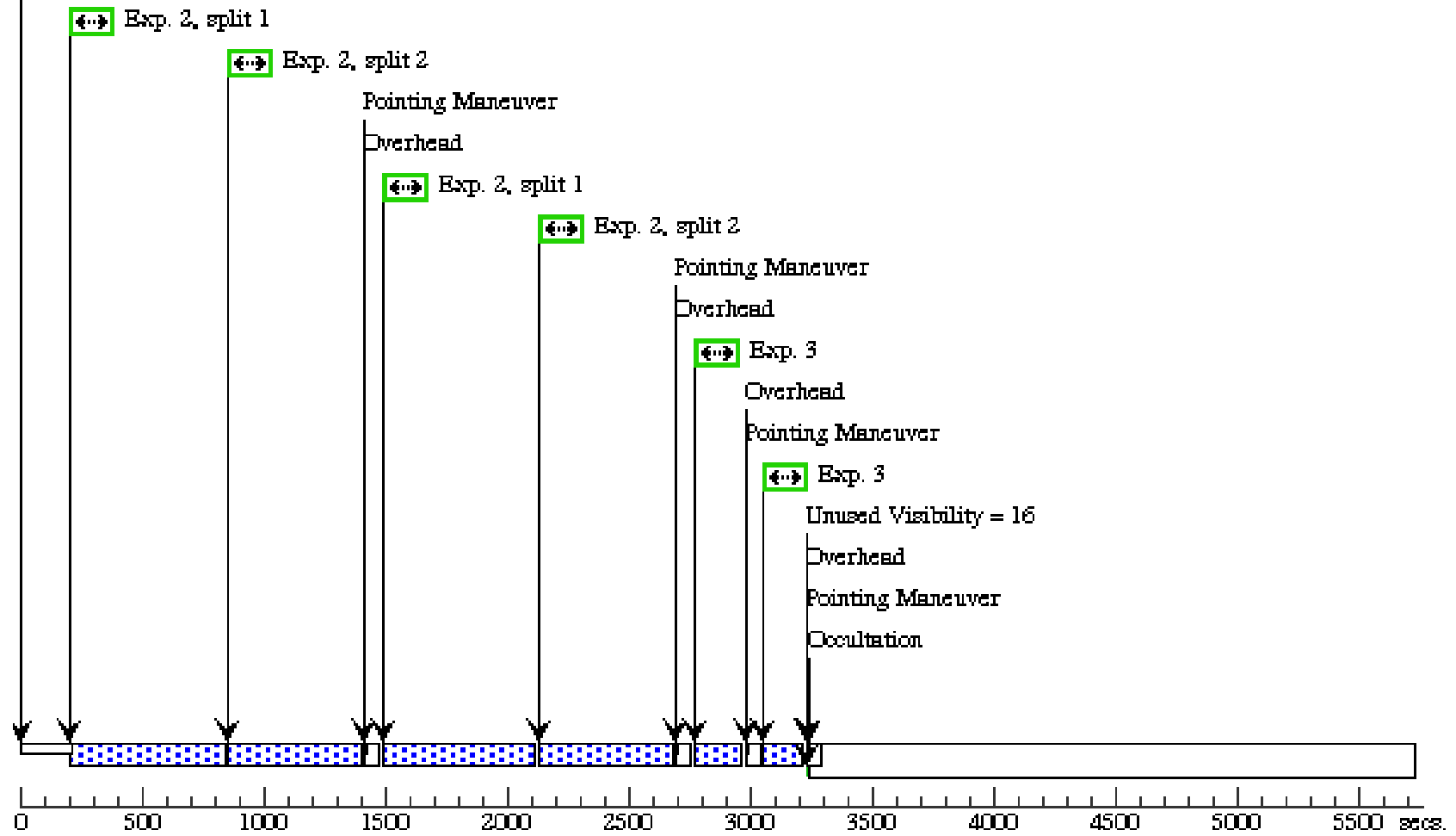
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(5) 1RXSJ1609	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=2	Pattern 1, Exps 1-1 i n Visit 23 (1)	1320 Secs	[1]		
							[==>(Pattern 1, Split 1)]			
							[==>(Pattern 1, Split 2)]			
							[==>(Pattern 2, Split 1)]			
							[==>(Pattern 2, Split 2)]			
	2	(5) 1RXSJ1609	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=2	Pattern 1, Exps 2-2 i n Visit 23 (1)	1100 Secs	[2]		
							[==>(Pattern 1, Split 1)]			
						[==>(Pattern 1, Split 2)]				
						[==>(Pattern 2, Split 1)]				
						[==>(Pattern 2, Split 2)]				
3	(5) 1RXSJ1609	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO	Pattern 1, Exps 3-3 i n Visit 23 (1)	160 Secs	[2]			
						[==>(Pattern 1)]				
						[==>(Pattern 2)]				
4	(5) 1RXSJ1609	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO	Pattern 1, Exps 4-4 i n Visit 23 (1)	60 Secs	[3]			
						[==>(Pattern 1)]				
						[==>(Pattern 2)]				
5	(5) 1RXSJ1609	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO	Pattern 1, Exps 5-5 i n Visit 23 (1)	320 Secs	[3]			
						[==>(Pattern 1)]				
						[==>(Pattern 2)]				
6	(5) 1RXSJ1609	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO	Pattern 1, Exps 6-6 i n Visit 23 (1)	570 Secs	[3]			
						[==>(Pattern 1)]				
						[==>(Pattern 2)]				
7	(5) 1RXSJ1609	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W		Pattern 2, Exps 7-7 i n Visit 23 (2)	60 Secs	[3]			
						[==>(Pattern 1)]				
						[==>(Pattern 2)]				
						[==>(Pattern 3)]				
						[==>(Pattern 4)]				

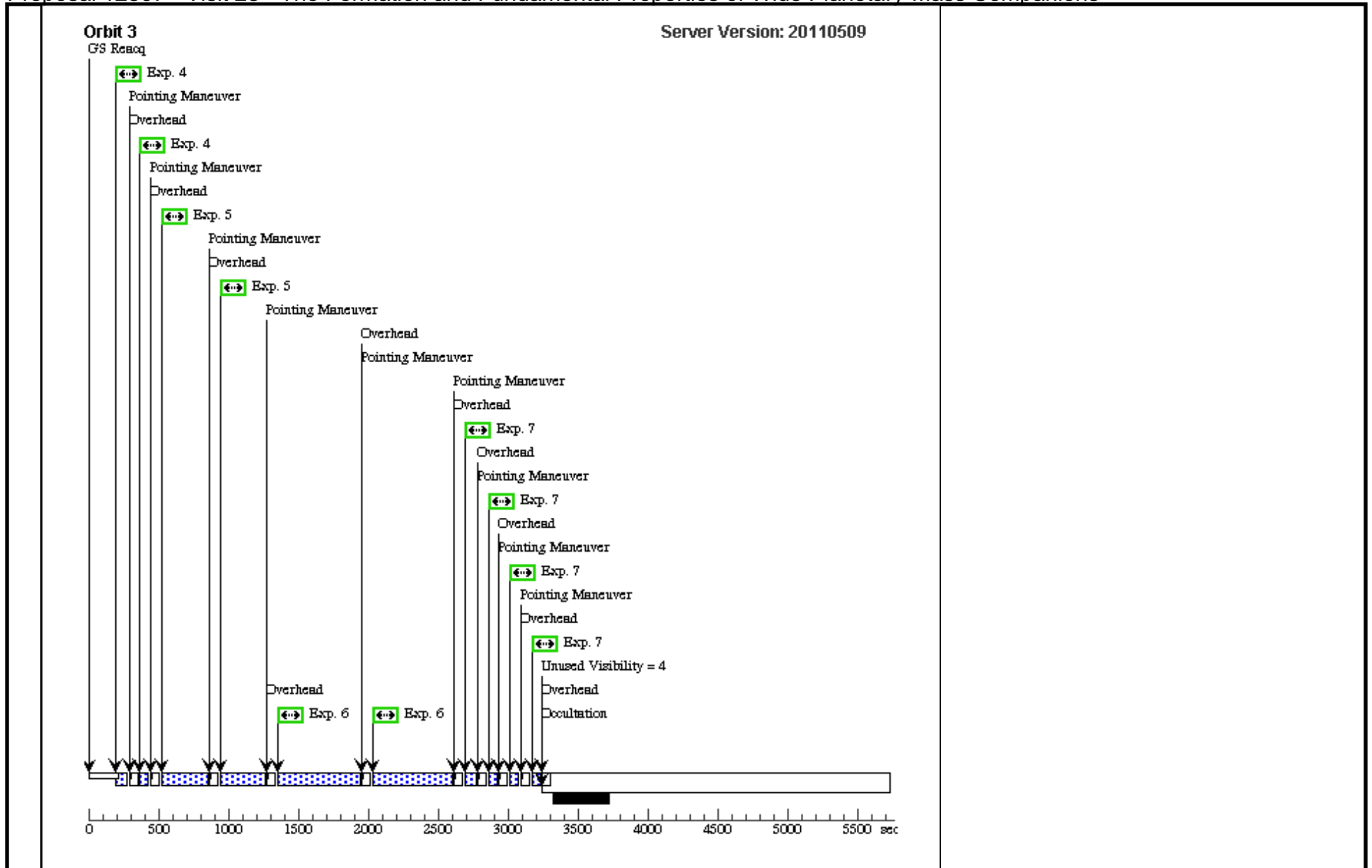
Orbit Structure



Orbit 2

GS Req





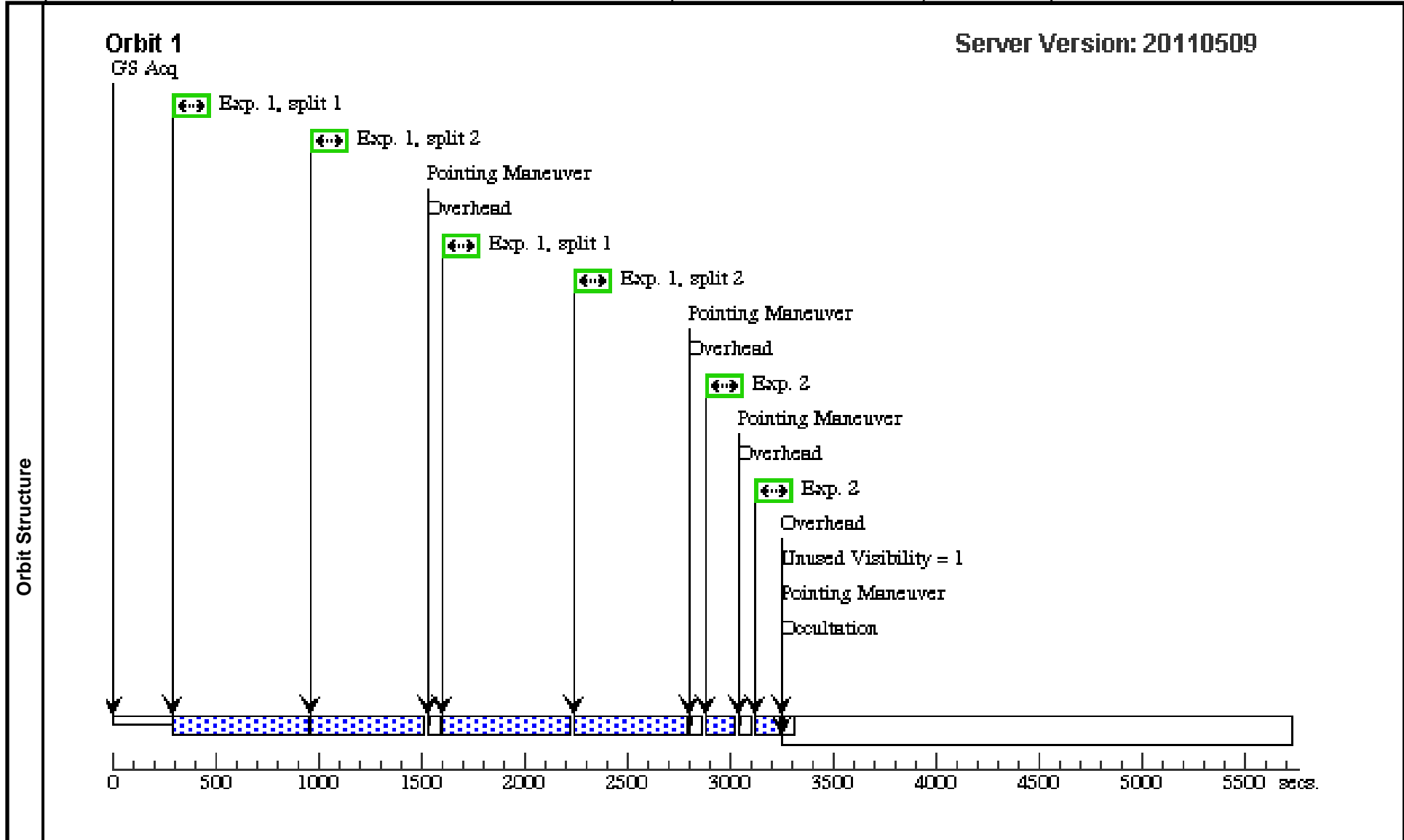
Proposal 12507 - Visit 24 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

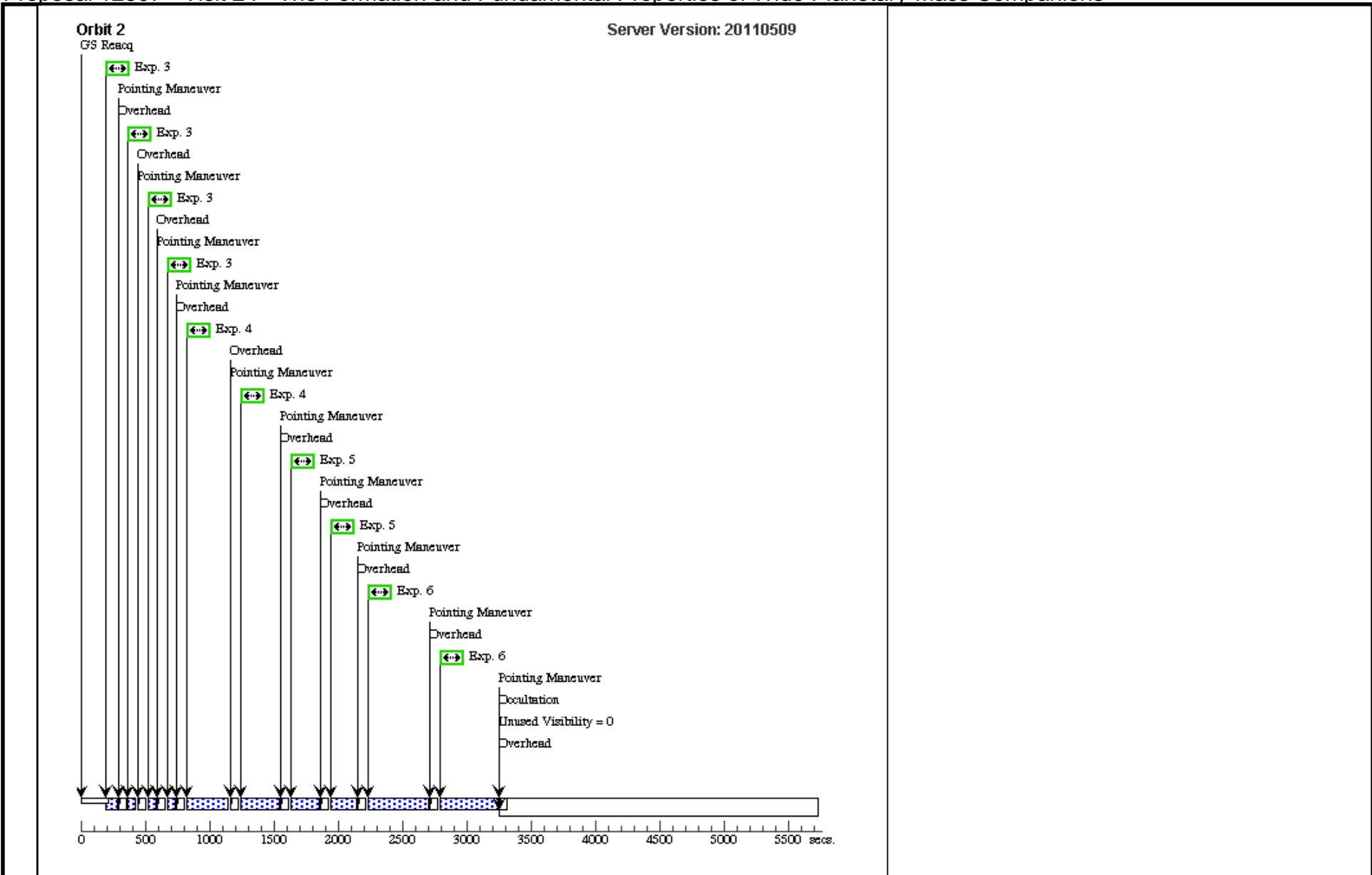
Tue Jul 12 02:20:54 GMT 2011

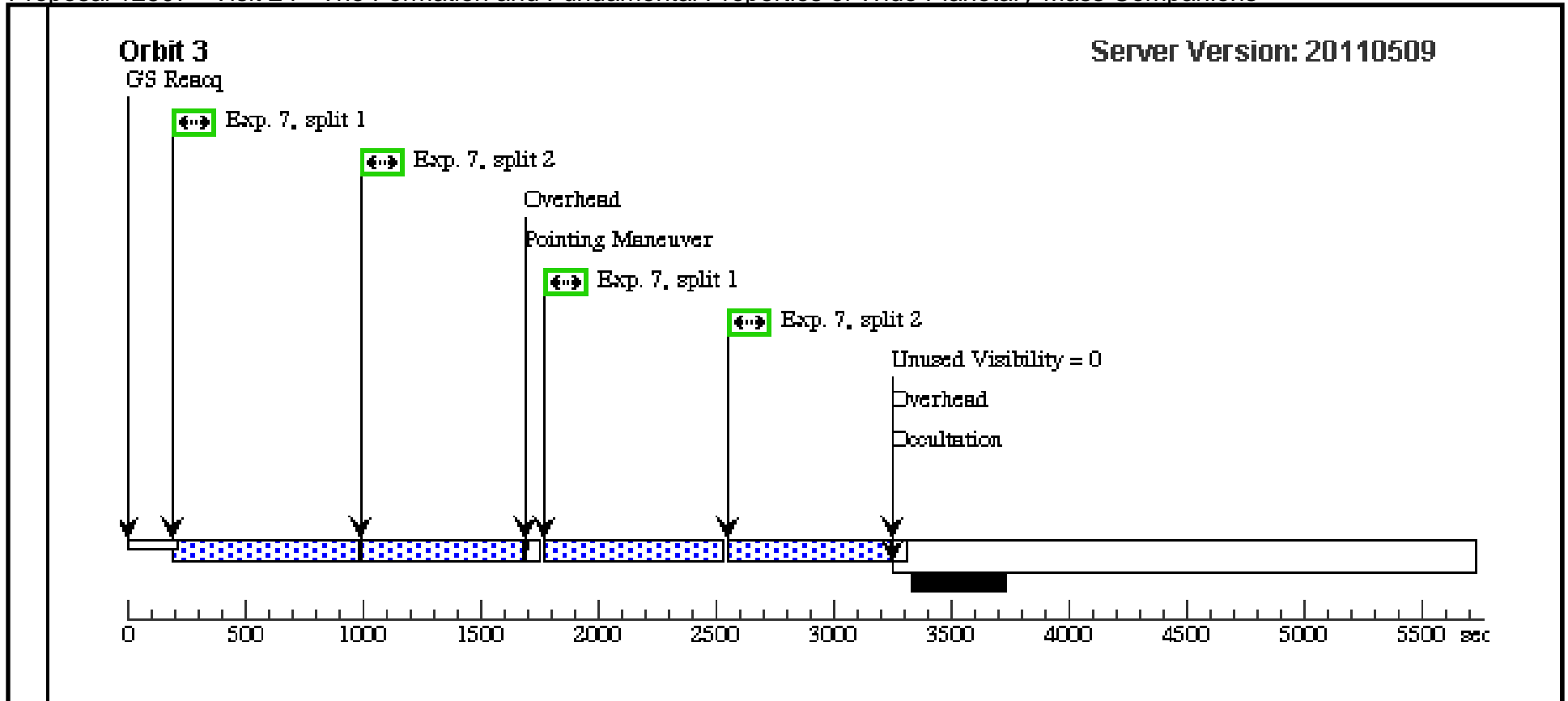
Visit	<b>Proposal 12507, Visit 24</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (4), (5), (6), (7)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(3)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	FWTAU	RA: 04 29 29.7100 (67.3737917d) Dec: +26 16 53.20 (26.28144d) Equinox: J2000		V=14.8+/-0.3 Companion: K~16.4, J~18.1, z=20.3, i~22.2, r~24.8, g~27.3, u~28.7	Reference Frame: ICRS

Proposal 12507 - Visit 24 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(3) FWTAU		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F656N	CR-SPLIT=2		Pattern 1, Exps 1-1 i n Visit 24 (1)	1100 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[1]
	2	(3) FWTAU		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 24 (1)	119 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(3) FWTAU		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W			Pattern 2, Exps 3-3 i n Visit 24 (2)	60 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]
	4	(3) FWTAU		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO		Pattern 1, Exps 4-4 i n Visit 24 (1)	300 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	5	(3) FWTAU		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO		Pattern 1, Exps 5-5 i n Visit 24 (1)	200 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	6	(3) FWTAU		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=NO		Pattern 1, Exps 6-6 i n Visit 24 (1)	450 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(3) FWTAU		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F390W	CR-SPLIT=2		Pattern 1, Exps 7-7 i n Visit 24 (1)	1380 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[3]







Proposal 12507 - Visit 14 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

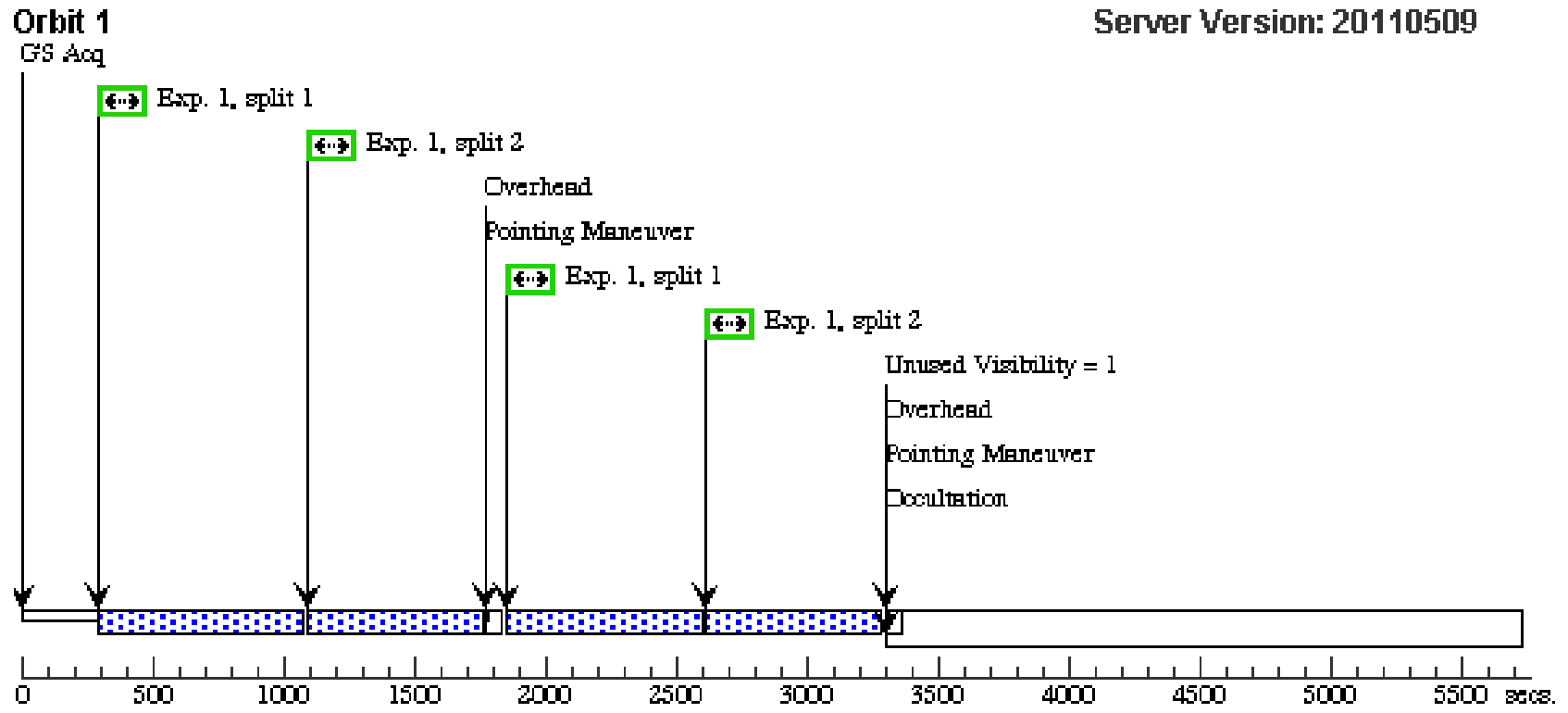
Tue Jul 12 02:20:55 GMT 2011

Visit	<b>Proposal 12507, Visit 14</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	#	Primary Pattern	Secondary Pattern	Exposures		
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false	(1), (2), (3-4)		
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	(5)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	2M1207	RA: 12 07 33.4700 (181.8894583d) Dec: -39 32 54.00 (-39.54833d) Equinox: J2000		V=18.9+/-0.3 Companion: K=16.9, J=20, z~22.3, i~24.1, r~26.7, g~29.2, u~30.6 (predicted photosphere)	Reference Frame: ICRS

Proposal 12507 - Visit 14 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

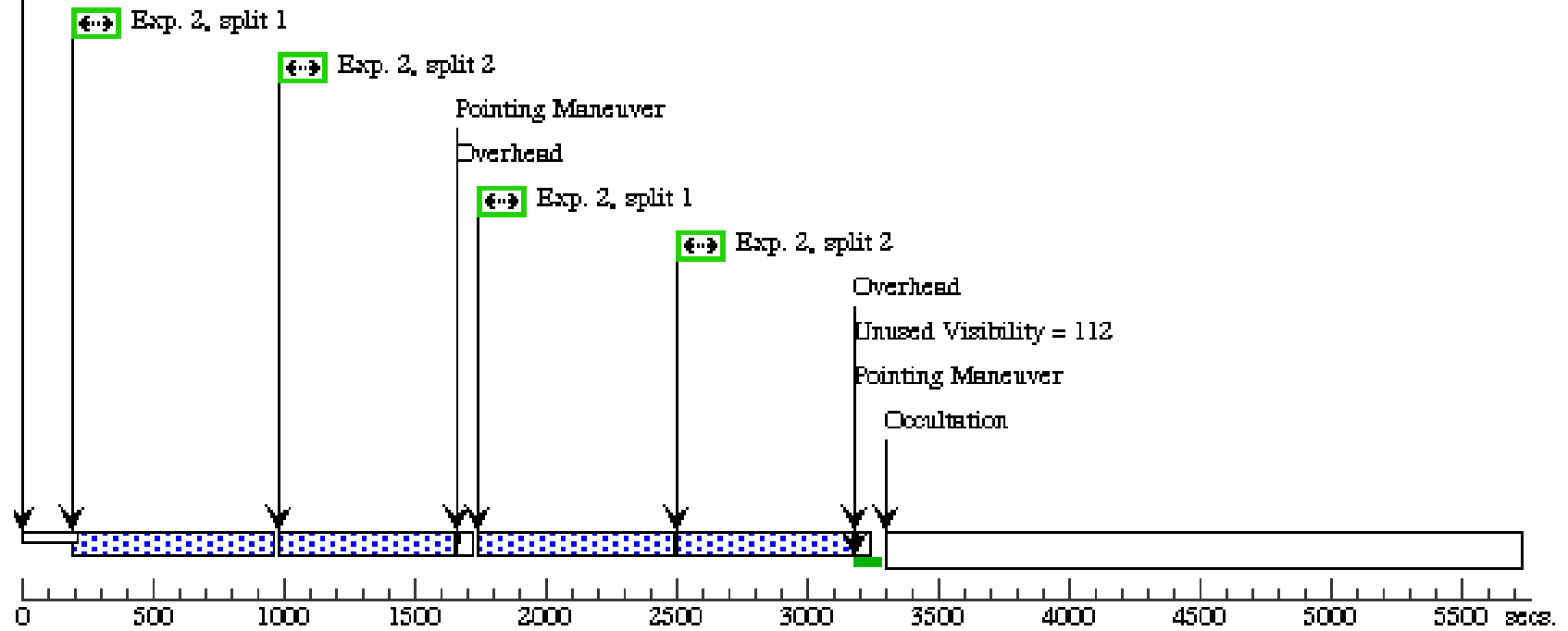
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(1) 2M1207		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F475W	CR-SPLIT=2		Pattern 1, Exps 1-1 i n Visit 14 (1)	1346 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[1]
	2	(1) 2M1207		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=2		Pattern 1, Exps 2-2 i n Visit 14 (1)	1346 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[2]
	3	(1) 2M1207		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=2		Pattern 1, Exps 3-4 i n Visit 14 (1)	1600 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[3] [4]
	4	(1) 2M1207		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 3-4 i n Visit 14 (1)	379 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3] [4]
	5	(1) 2M1207		WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W			Pattern 2, Exps 5-5 i n Visit 14 (2)	350 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[4]

Orbit Structure



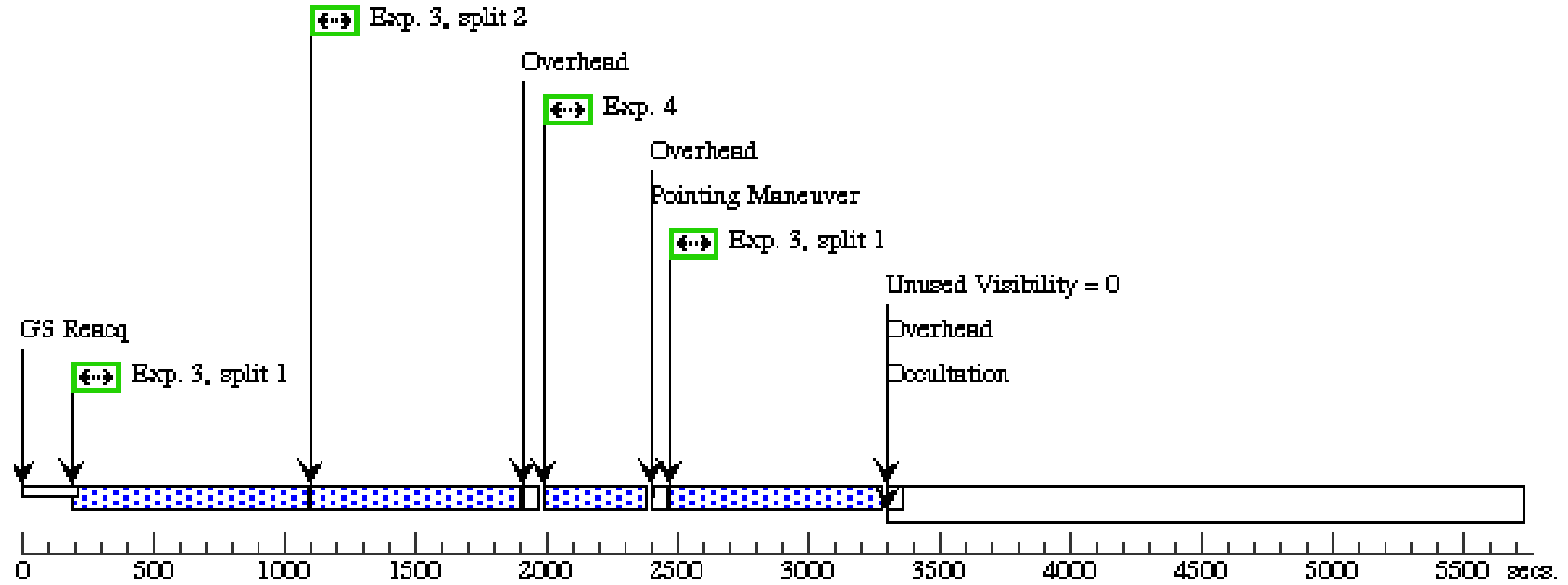
Orbit 2

GS Recsq

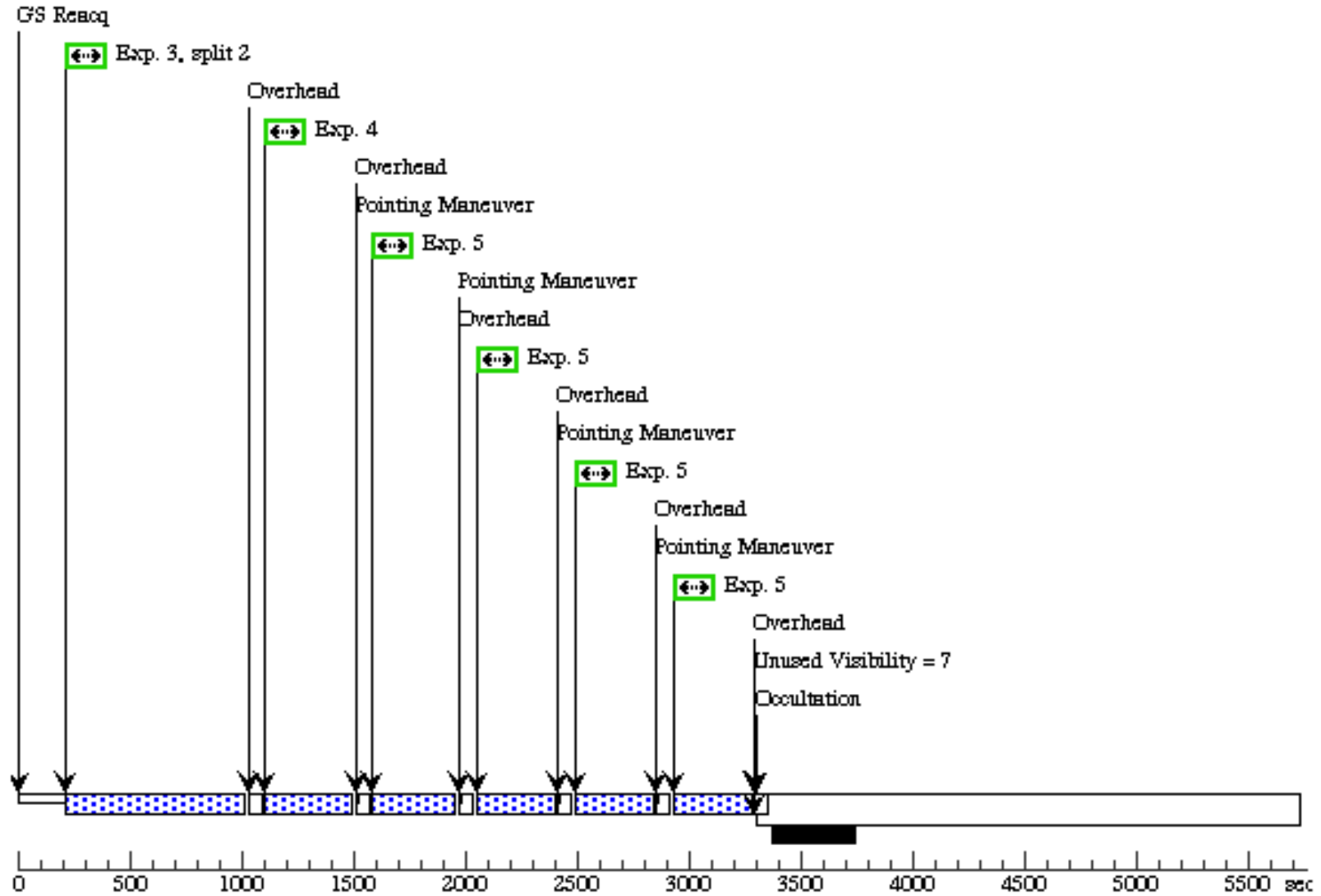


Orbit 3

Server Version: 20110509



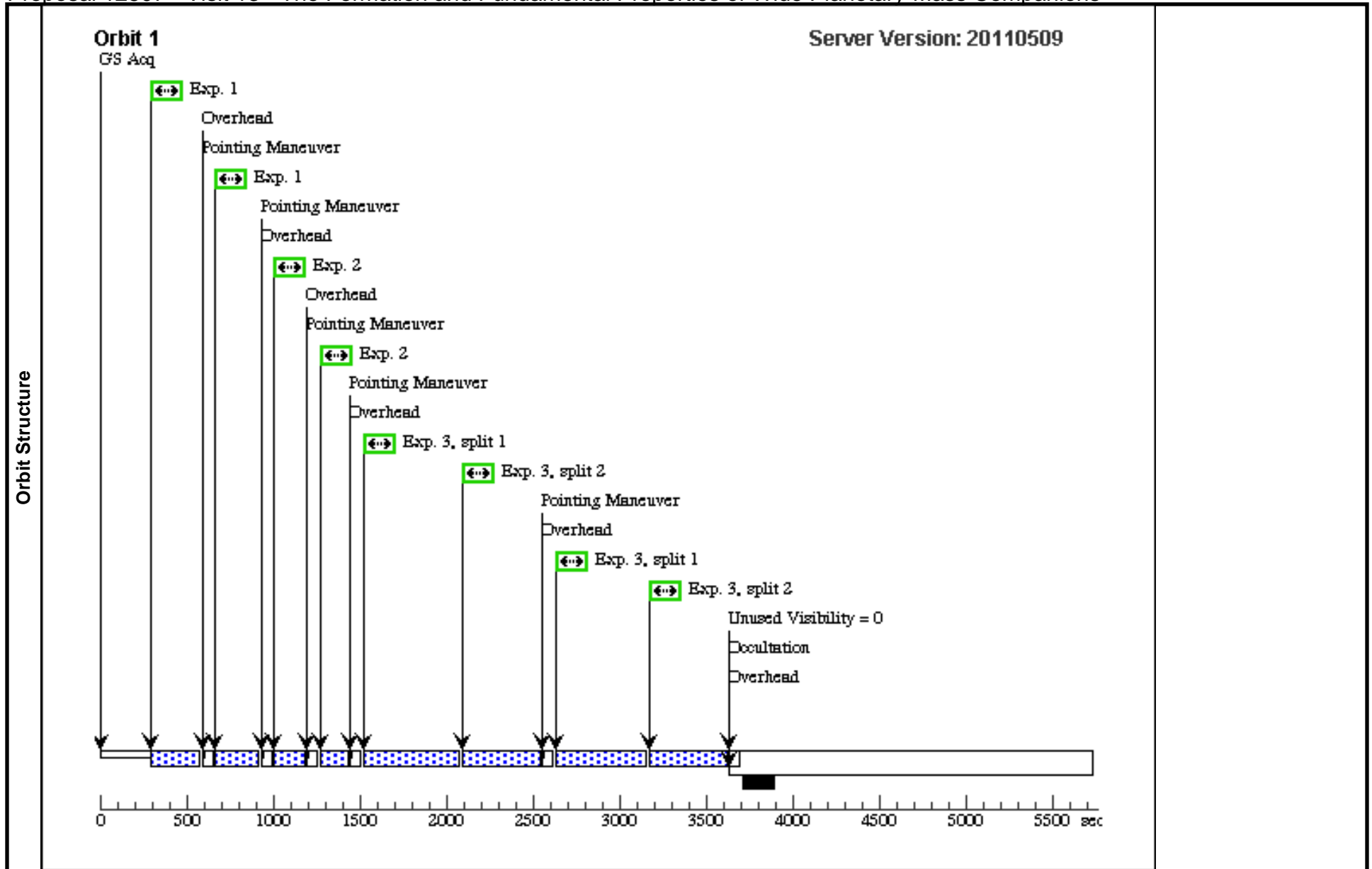
**Orbit 4**



Proposal 12507 - Visit 13 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

Tue Jul 12 02:20:56 GMT 2011

Visit	<b>Proposal 12507, Visit 13</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	CHXR73	RA: 11 06 29.3000 (166.6220833d) Dec: -77 37 34.00 (-77.62611d) Equinox: J2000		V=20.0+/-0.3 Companion: K=15.5, J=17.9, z~21.6, i~24.5, r~28.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(6) CHXR73	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W	CR-SPLIT=NO		Pattern 1, Exps 1-1 in Visit 13 (1)	250 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
2		(6) CHXR73	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP	CR-SPLIT=NO		Pattern 1, Exps 2-2 in Visit 13 (1)	156 Secs		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
3		(6) CHXR73	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=2		Pattern 1, Exps 3-3 in Visit 13 (1)	900 Secs		
								[==>(Pattern 1, Split 1)]		
								[==>(Pattern 1, Split 2)]		
								[==>(Pattern 2, Split 1)]		
								[==>(Pattern 2, Split 2)]	[1]	



Proposal 12507 - Visit 15 - The Formation and Fundamental Properties of Wide Planetary-Mass Companions

Tue Jul 12 02:20:56 GMT 2011

Visit	<b>Proposal 12507, Visit 15</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2), (3)						
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(4)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(7)	CTCHA	RA: 11 04 9.1310 (166.0380458d) Dec: -76 27 19.30 (-76.45536d) Equinox: J2000		V=12.4+/-0.3 Companion: K=14.9, J=16.6, z~19.7, i~22.1, r~25.8	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(7) CTCHA	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F775W	CR-SPLIT=NO		Pattern 1, Exps 1-1 in Visit 15 (1)	150 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2		(7) CTCHA	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F555W	CR-SPLIT=NO		Pattern 1, Exps 2-2 in Visit 15 (1)	600 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3		(7) CTCHA	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F625W	CR-SPLIT=NO		Pattern 1, Exps 3-3 in Visit 15 (1)	250 Secs [=>(Pattern 1)] [=>(Pattern 2)]	[1]
4		(7) CTCHA	WFC3/UVIS, ACCUM, UVIS2-M1K1C-SUB	F850LP			Pattern 2, Exps 4-4 in Visit 15 (2)	100 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]	

