



15923 - Gravitational lensing by field halos: a clean test of dark matter models

Cycle: 27, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) SDSSJ0029+2544	WFC3/UVIS	2	06-Dec-2019 13:01:27.0	yes
02	(2) SDSSJ0113+0250	WFC3/UVIS	2	06-Dec-2019 13:01:28.0	yes
03	(3) SDSSJ0201+3228	WFC3/UVIS	3	06-Dec-2019 13:01:30.0	yes
04	(4) SDSSJ0742+3341	WFC3/UVIS	2	06-Dec-2019 13:01:31.0	yes
05	(5) SDSSJ0755+3445	WFC3/UVIS	3	06-Dec-2019 13:01:32.0	yes
06	(6) SDSSJ0918+4518	WFC3/UVIS	2	06-Dec-2019 13:01:34.0	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>
07	(7) SDSSJ0918+5104	WFC3/UVIS	3	06-Dec-2019 13:01:35.0	yes
08	(8) SDSSJ1110+3649	WFC3/UVIS	3	06-Dec-2019 13:01:37.0	yes
09	(9) SDSSJ1201+4743	WFC3/UVIS	3	06-Dec-2019 13:01:39.0	yes
10	(10) SDSSJ1226+5457	WFC3/UVIS	2	06-Dec-2019 13:01:40.0	yes
11	(11) SDSSJ2342-0120	WFC3/UVIS	2	06-Dec-2019 13:01:41.0	yes
62	(11) SDSSJ2342-0120	WFC3/UVIS	2	06-Dec-2019 13:01:42.0	yes

29 Total Orbits Used

ABSTRACT

The Cold Dark Matter (CDM) model for galaxy formation is currently the most successful at reproducing a large variety of observations, but it remains largely untested in the non-linear sub-galactic regime. A clear prediction of this model is that a significant number of low-mass halos should populate any line-of-sight. As most of these objects are expected to be completely dark, strong gravitational lensing provides a unique channel to detect them and determine the properties of dark matter by constraining the halo-mass function at the low-mass end. However, the available data for known gravitational lens systems currently lack the sensitivity to probe the halo mass function at the regime where different dark models significantly differ.

This proposal requests 27 orbits to re-observe a carefully selected sample of 11 highly magnified gravitational arcs/rings. The high redshift ($z \sim 2-3$) of the uv-bright background galaxies will allow the dark matter distribution in the non-linear regime to be probed over a sizeable line-of-sight volume. A published analysis of the single-orbit imaging for these lenses does not detect any low mass halos. Given the expectation value is 1 ± 1 , this result is (just) consistent with CDM. However, given the low expectation value, further observations are required to test the robustness of this result. Simulations predict that 9 ± 3 low-mass halos will be detected in the higher signal-to-noise ratio dataset requested here, for a CDM Universe. A null-detection from these new data will, therefore, rule out the CDM model for dark matter at more than the 3 sigma level.

OBSERVING DESCRIPTION

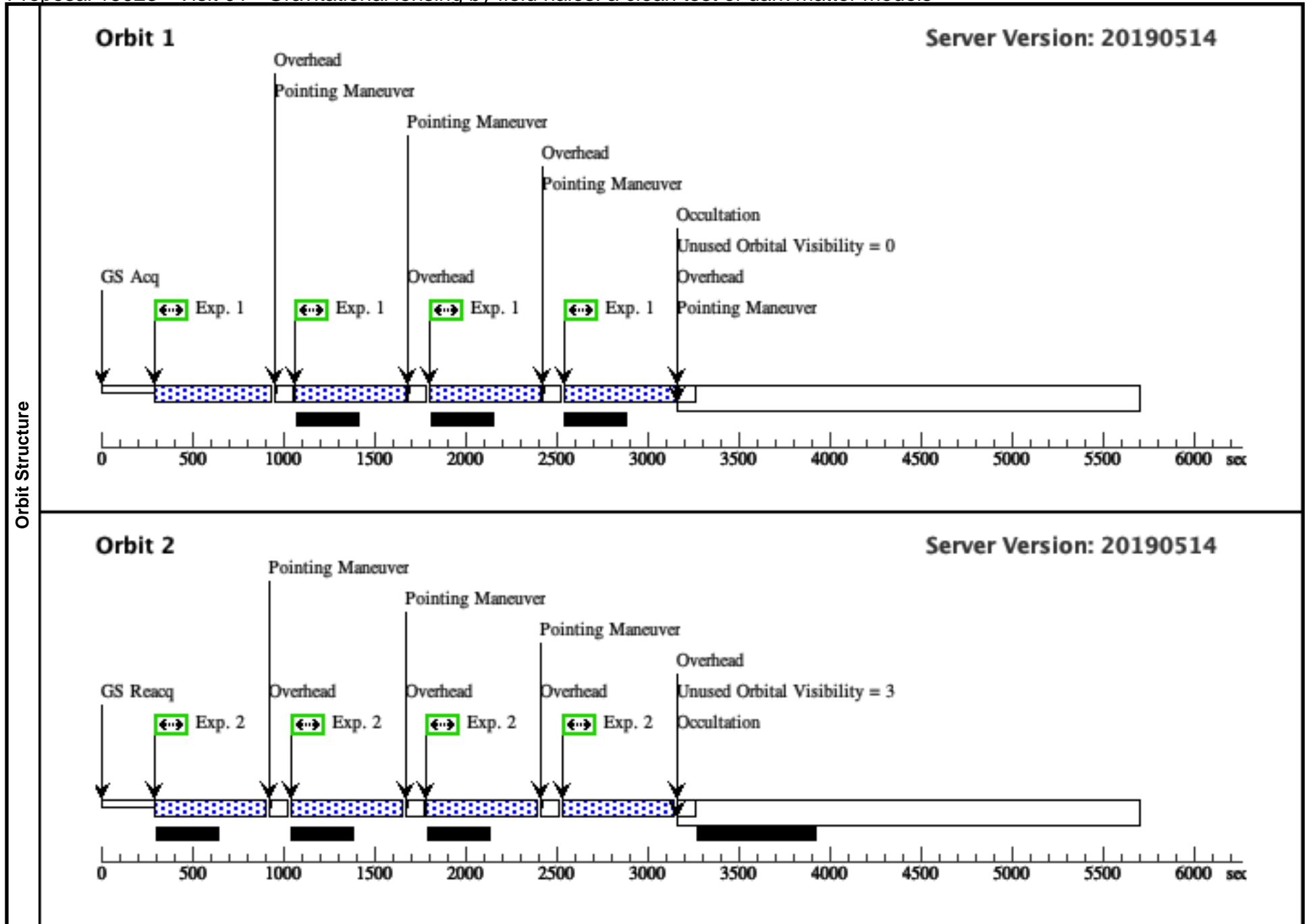
The immediate goal of these observations is to obtain high signal-to-noise ratio images through filter WFC3-UVIS/F606W for 11 gravitationally lensed LAEs from the BELLS sample. The objects have all been observed with WFC3/UVIS-F606W for one orbit, and the observations requested

here will provide the signal-to-noise ratio required to achieve our scientific goal. In particular, we require three-orbits for 5 targets and two-orbits for 6 targets, giving a total of 27 orbits to complete the project.

Proposal 15923 - Visit 01 - Gravitational lensing by field halos: a clean test of dark matter models

Fri Dec 06 18:01:43 GMT 2019

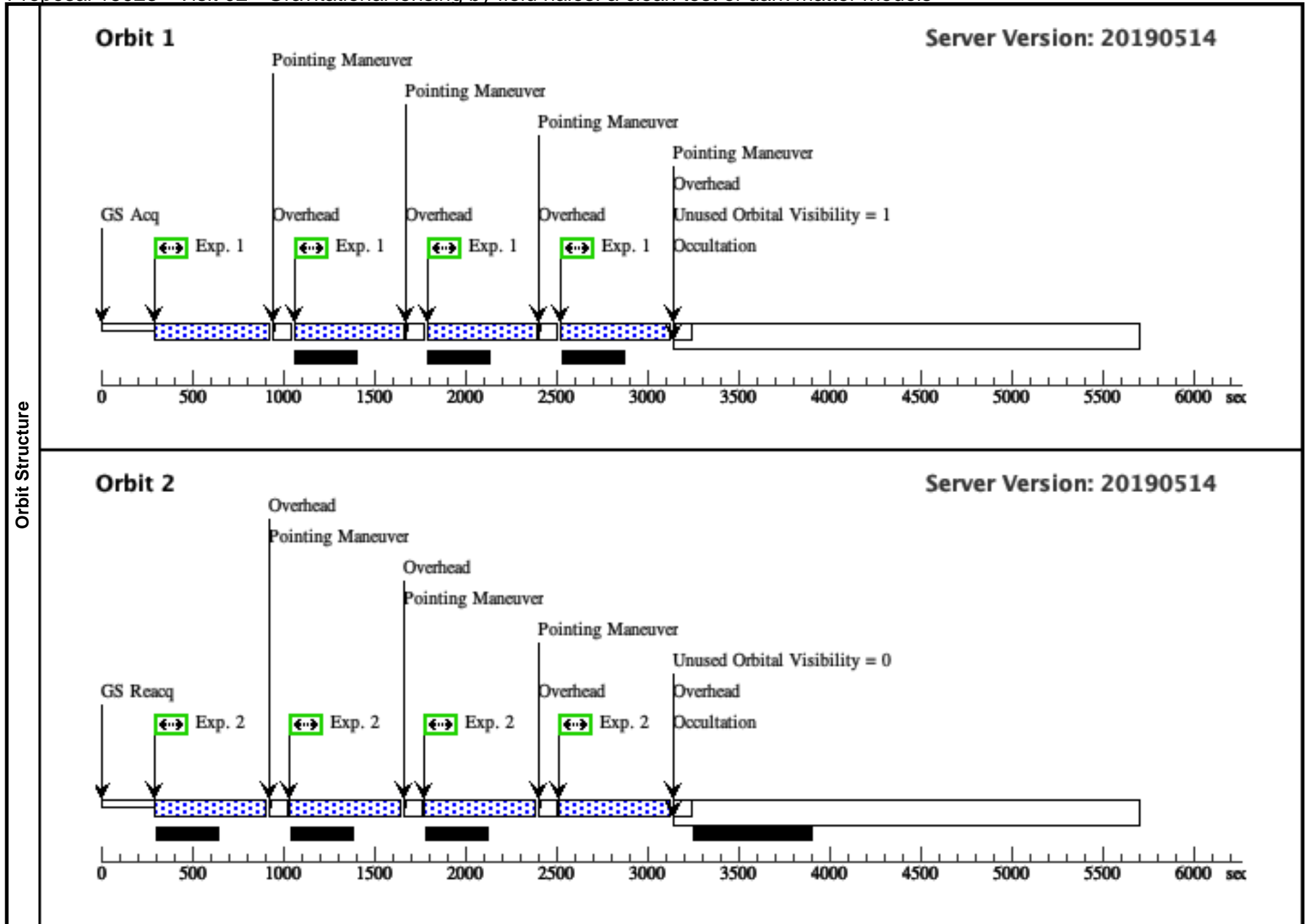
Visit	Proposal 15923, Visit 01, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	SDSSJ0029+2544	RA: 00 29 27.3880 (7.3641167d) Dec: +25 44 1.78 (25.73383d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) SDSSJ0029+2544 4	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 01 (1)	610 Secs (2440 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2		(1) SDSSJ0029+2544 4	WFC3/UVIS, ACCUM, UVIS1	F606W				Pattern 1, Exps 2-2 in Visit 01 (1)	617 Secs (2468 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]



Proposal 15923 - Visit 02 - Gravitational lensing by field halos: a clean test of dark matter models

Fri Dec 06 18:01:43 GMT 2019

Visit	Proposal 15923, Visit 02, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	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		(1), (2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	SDSSJ0113+0250	RA: 01 13 0.5750 (18.2523958d) Dec: +02 50 46.20 (2.84617d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) SDSSJ0113+0250	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 02 (1)	610 Secs (2416 Secs)	
		0							[==>604.0 Secs (Pattern 1)] [==>604.0 Secs (Pattern 2)] [==>604.0 Secs (Pattern 3)] [==>604.0 Secs (Pattern 4)]	[1]
2		(2) SDSSJ0113+0250	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 02 (1)	617 Secs (2448 Secs)		
	0							[==>612.0 Secs (Pattern 1)] [==>612.0 Secs (Pattern 2)] [==>612.0 Secs (Pattern 3)] [==>612.0 Secs (Pattern 4)]	[2]	

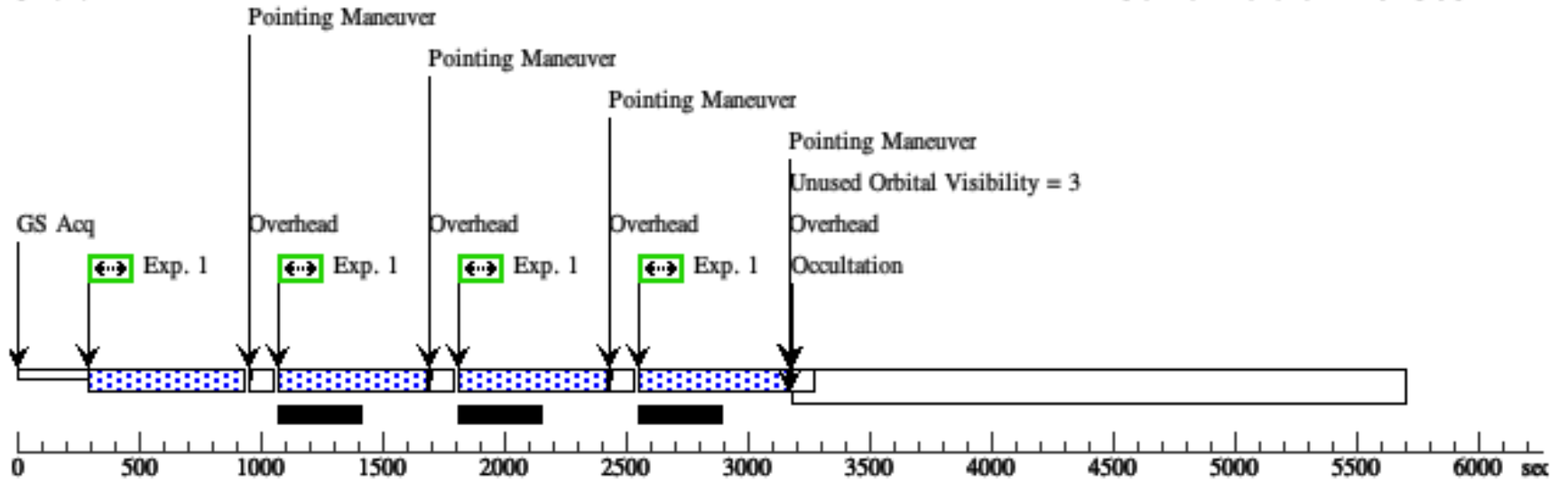


Proposal 15923 - Visit 03 - Gravitational lensing by field halos: a clean test of dark matter models

Fri Dec 06 18:01:43 GMT 2019

Visit	Proposal 15923, Visit 03, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	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		(1), (2), (3)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	SDSSJ0201+3228	RA: 02 01 21.3950 (30.3391458d) Dec: +32 28 29.67 (32.47491d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) SDSSJ0201+3228	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 03 (1)	610 Secs (2452 Secs)	
		8							[==>613.0 Secs (Pattern 1)] [==>613.0 Secs (Pattern 2)] [==>613.0 Secs (Pattern 3)] [==>613.0 Secs (Pattern 4)]	[1]
	2		(3) SDSSJ0201+3228	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 03 (1)	617 Secs (2484 Secs)	
	8							[==>621.0 Secs (Pattern 1)] [==>621.0 Secs (Pattern 2)] [==>621.0 Secs (Pattern 3)] [==>621.0 Secs (Pattern 4)]	[2]	
3		(3) SDSSJ0201+3228	WFC3/UVIS, ACCUM, UVIS1	F606W				Pattern 1, Exps 3-3 in Visit 03 (1)	617 Secs (2484 Secs)	
	8							[==>621.0 Secs (Pattern 1)] [==>621.0 Secs (Pattern 2)] [==>621.0 Secs (Pattern 3)] [==>621.0 Secs (Pattern 4)]	[3]	

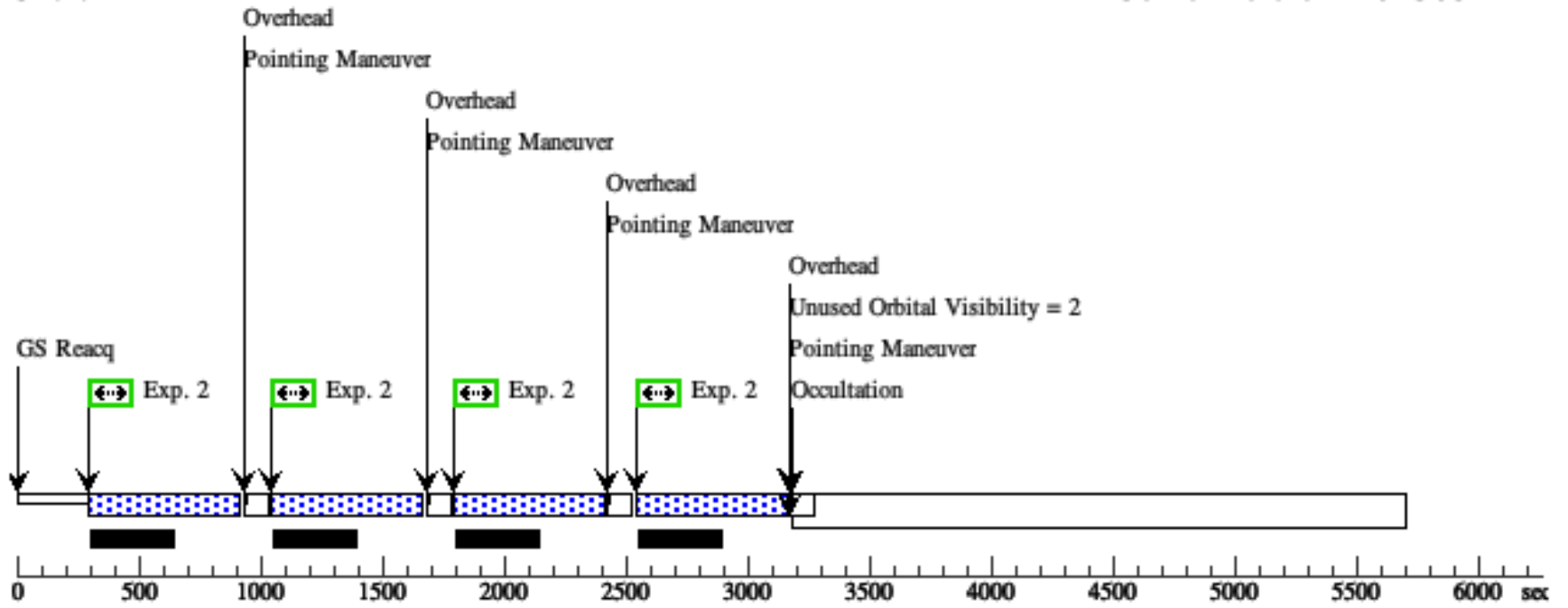
Orbit 1

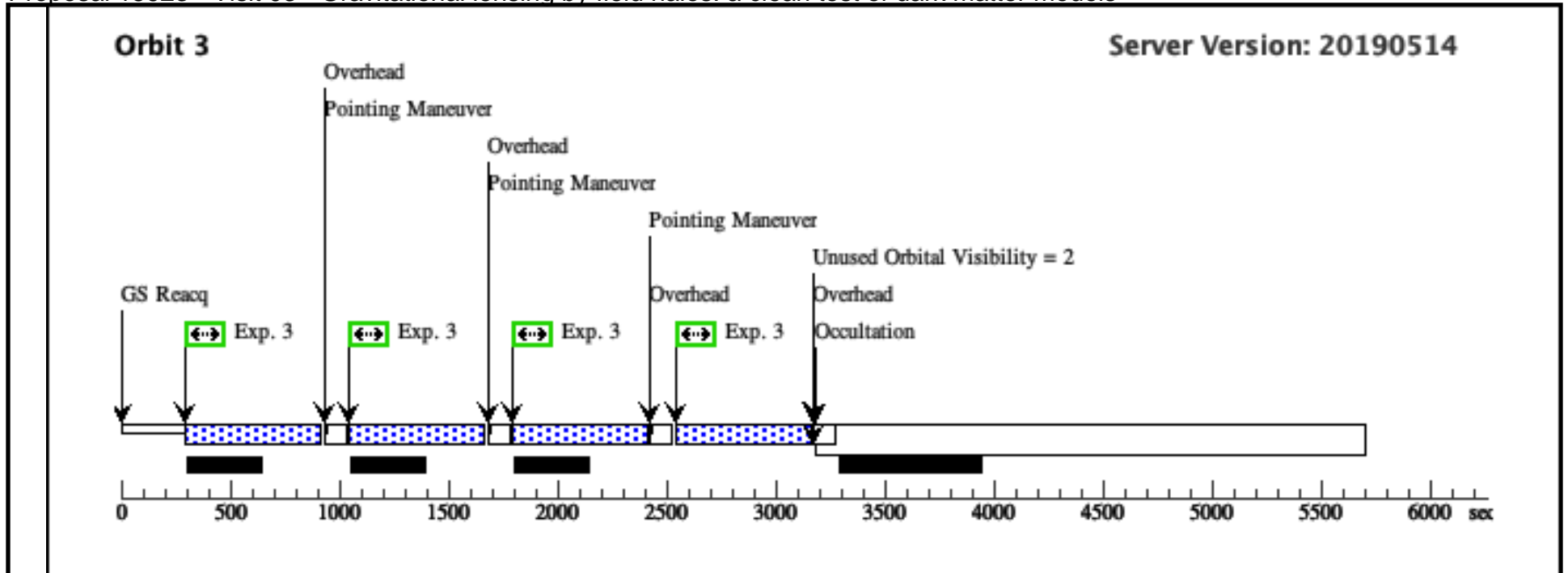


Orbit Structure

Orbit 2

Server Version: 20190514

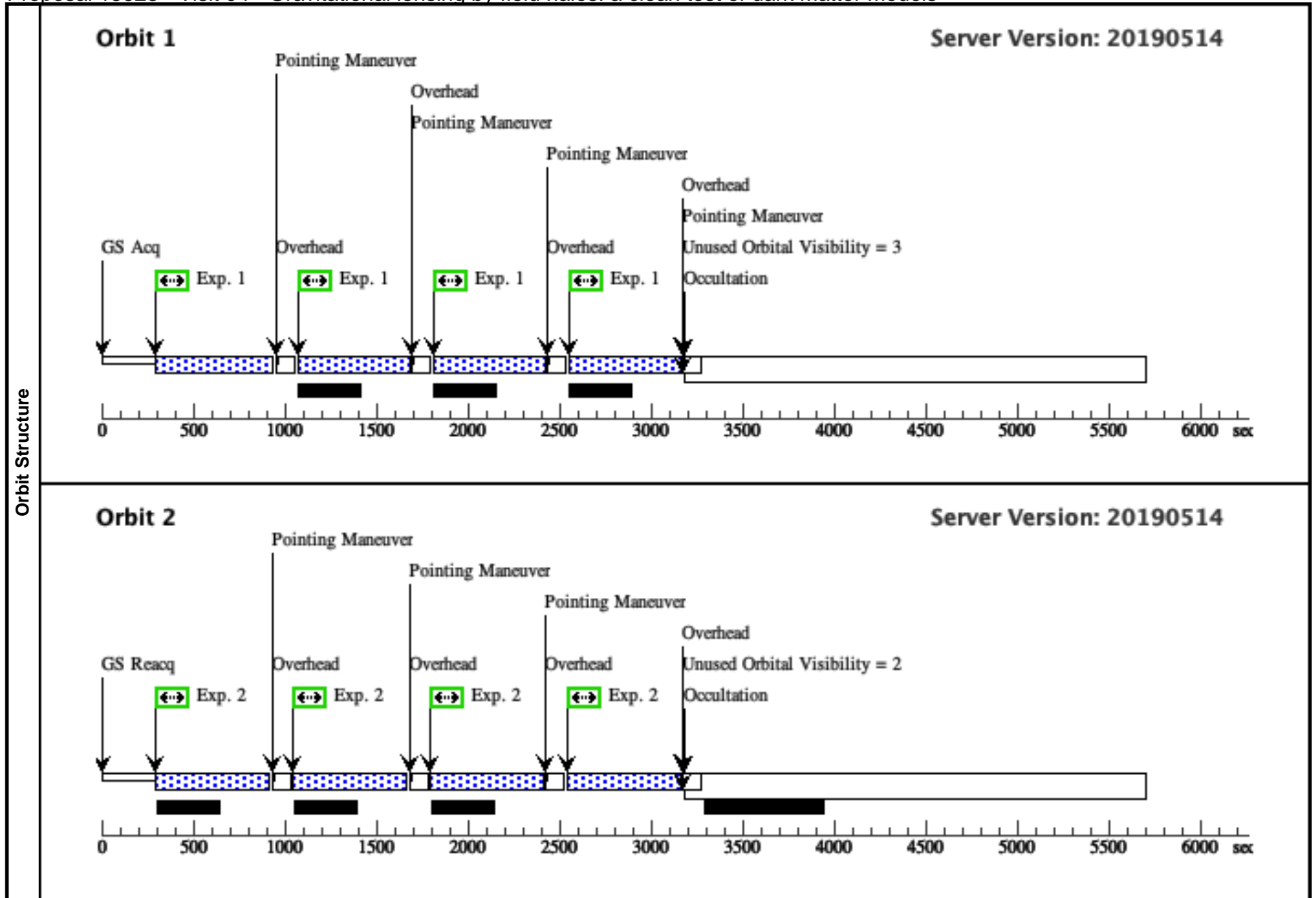




Proposal 15923 - Visit 04 - Gravitational lensing by field halos: a clean test of dark matter models

Fri Dec 06 18:01:43 GMT 2019

Visit	Proposal 15923, Visit 04, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	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		(1), (2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	SDSSJ0742+3341	RA: 07 42 49.6860 (115.7070250d) Dec: +33 41 48.99 (33.69694d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) SDSSJ0742+3341	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 04 (1)	610 Secs (2452 Secs)	
			1						[==>613.0 Secs (Pattern 1)] [==>613.0 Secs (Pattern 2)] [==>613.0 Secs (Pattern 3)] [==>613.0 Secs (Pattern 4)]	[1]
2		(4) SDSSJ0742+3341	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 04 (1)	617 Secs (2484 Secs)		
		1						[==>621.0 Secs (Pattern 1)] [==>621.0 Secs (Pattern 2)] [==>621.0 Secs (Pattern 3)] [==>621.0 Secs (Pattern 4)]	[2]	

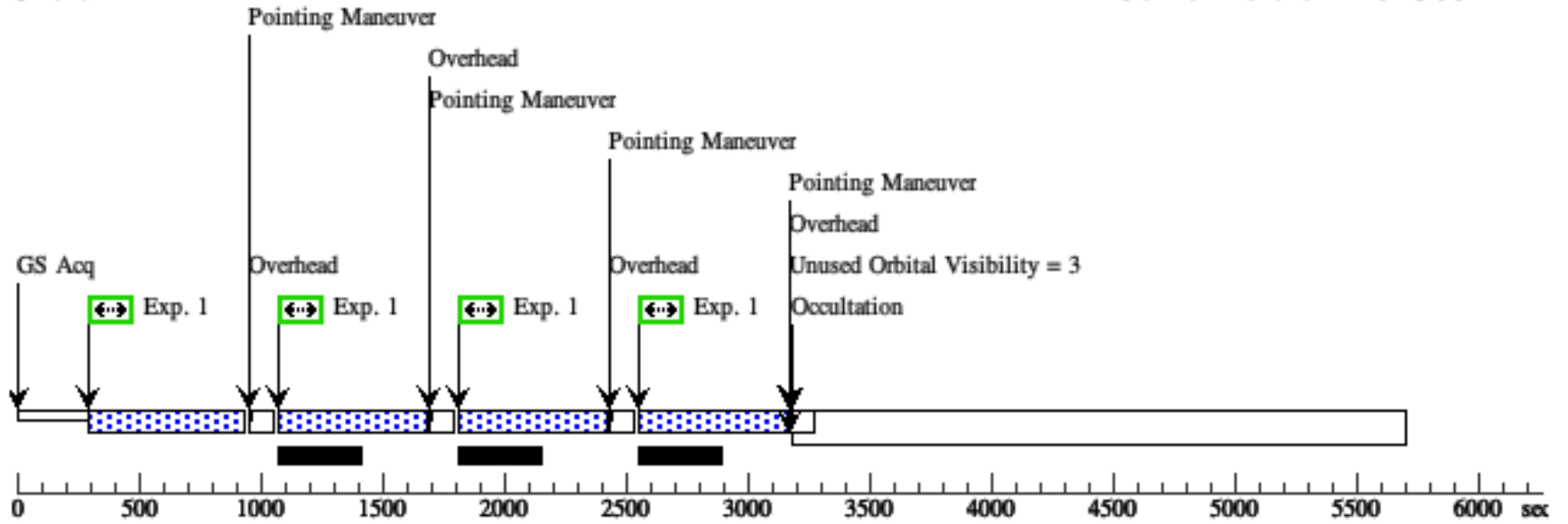


Proposal 15923 - Visit 05 - Gravitational lensing by field halos: a clean test of dark matter models

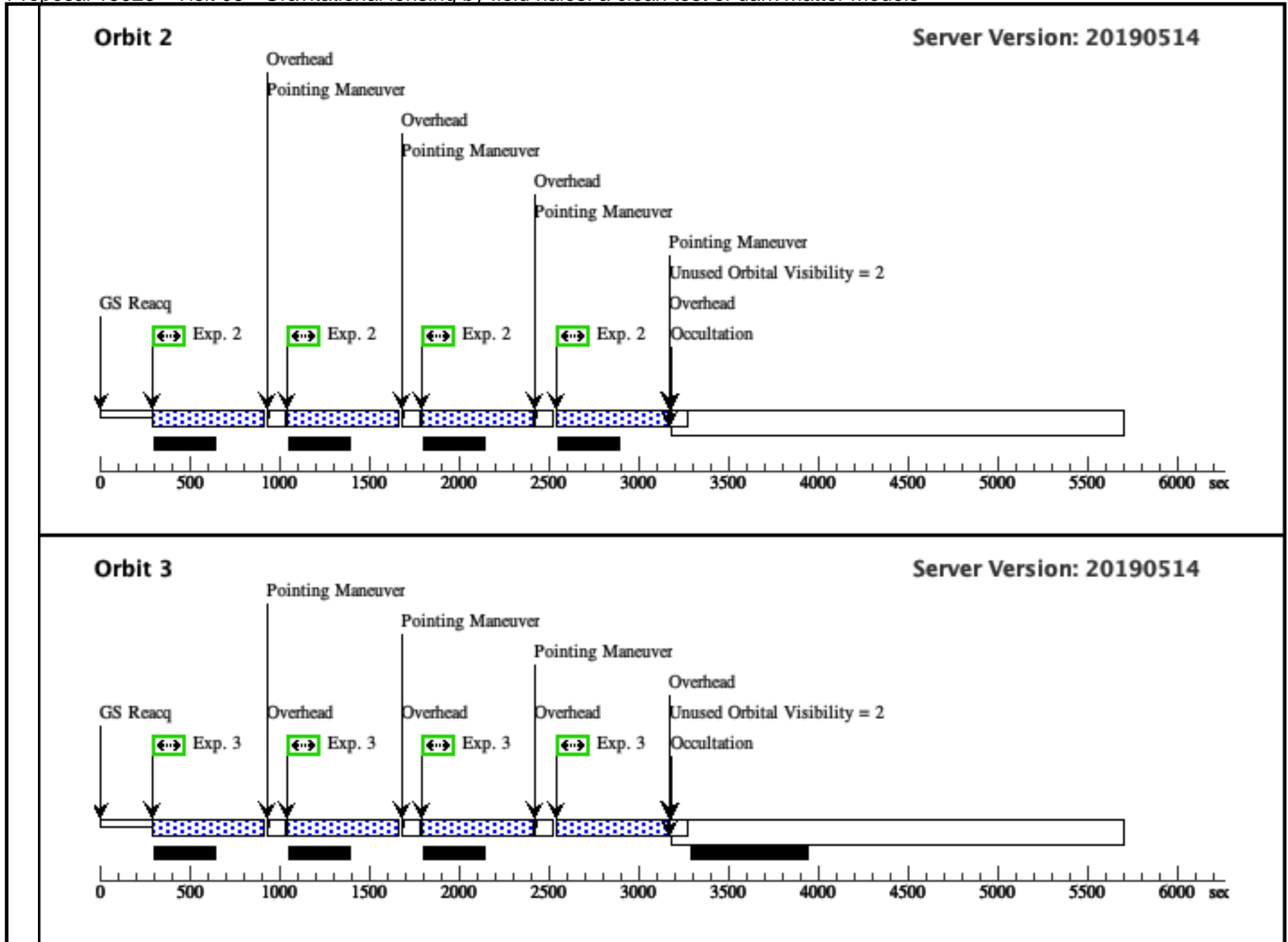
Fri Dec 06 18:01:43 GMT 2019

Visit	Proposal 15923, Visit 05, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
Patterns	#	Primary Pattern	Secondary Pattern	Exposures						
	(1)	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		(1), (2), (3)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	SDSSJ0755+3445	RA: 07 55 23.5250 (118.8480208d) Dec: +34 45 39.59 (34.76100d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) SDSSJ0755+3445	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 05 (1)	610 Secs (2452 Secs) [==>613.0 Secs (Pattern 1)] [==>613.0 Secs (Pattern 2)] [==>613.0 Secs (Pattern 3)] [==>613.0 Secs (Pattern 4)]	[1]
	2		(5) SDSSJ0755+3445	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 05 (1)	617 Secs (2484 Secs) [==>621.0 Secs (Pattern 1)] [==>621.0 Secs (Pattern 2)] [==>621.0 Secs (Pattern 3)] [==>621.0 Secs (Pattern 4)]	[2]
	3		(5) SDSSJ0755+3445	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 3-3 in Visit 05 (1)	617 Secs (2484 Secs) [==>621.0 Secs (Pattern 1)] [==>621.0 Secs (Pattern 2)] [==>621.0 Secs (Pattern 3)] [==>621.0 Secs (Pattern 4)]	[3]

Orbit 1



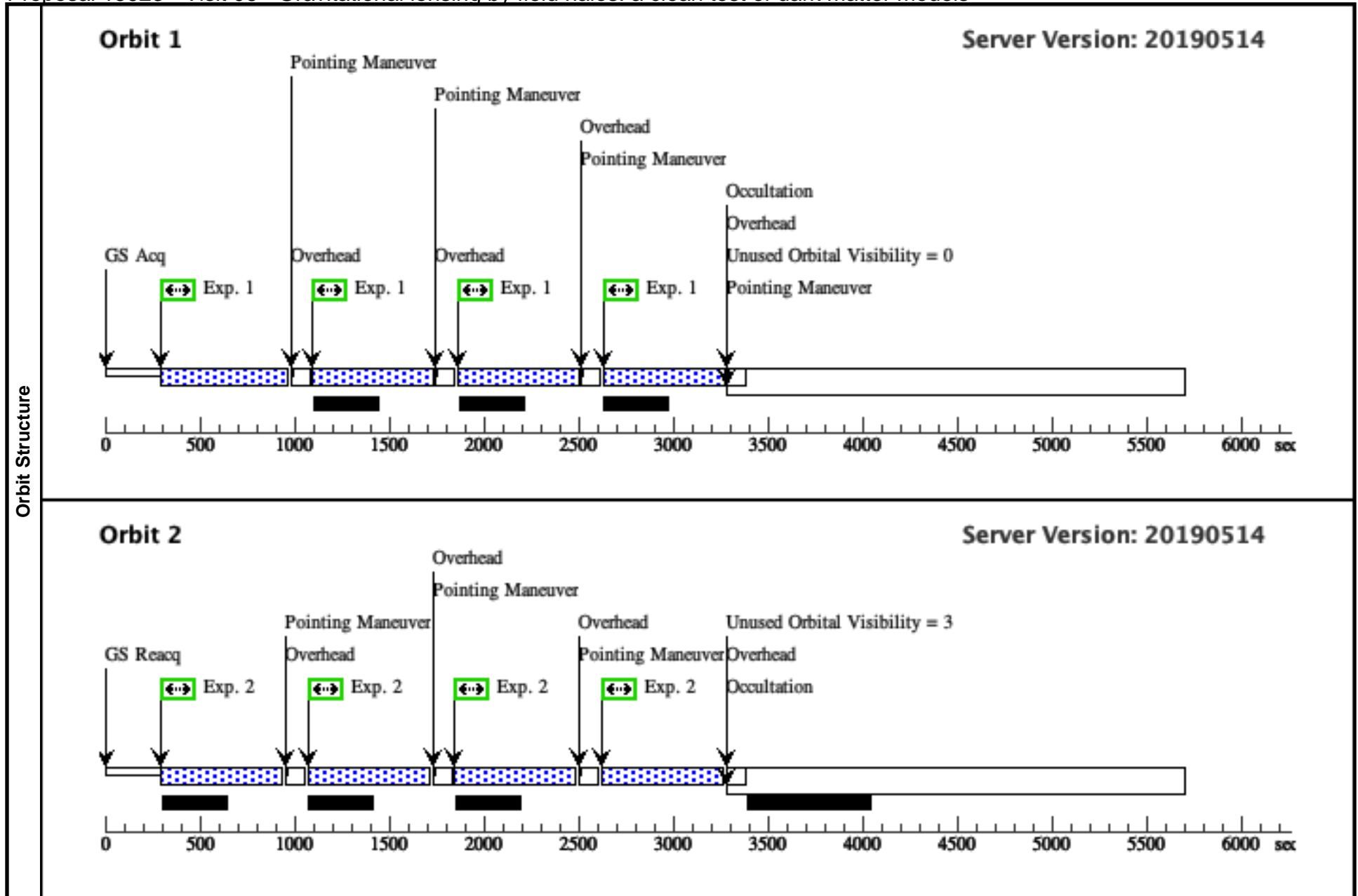
Orbit Structure



Proposal 15923 - Visit 06 - Gravitational lensing by field halos: a clean test of dark matter models

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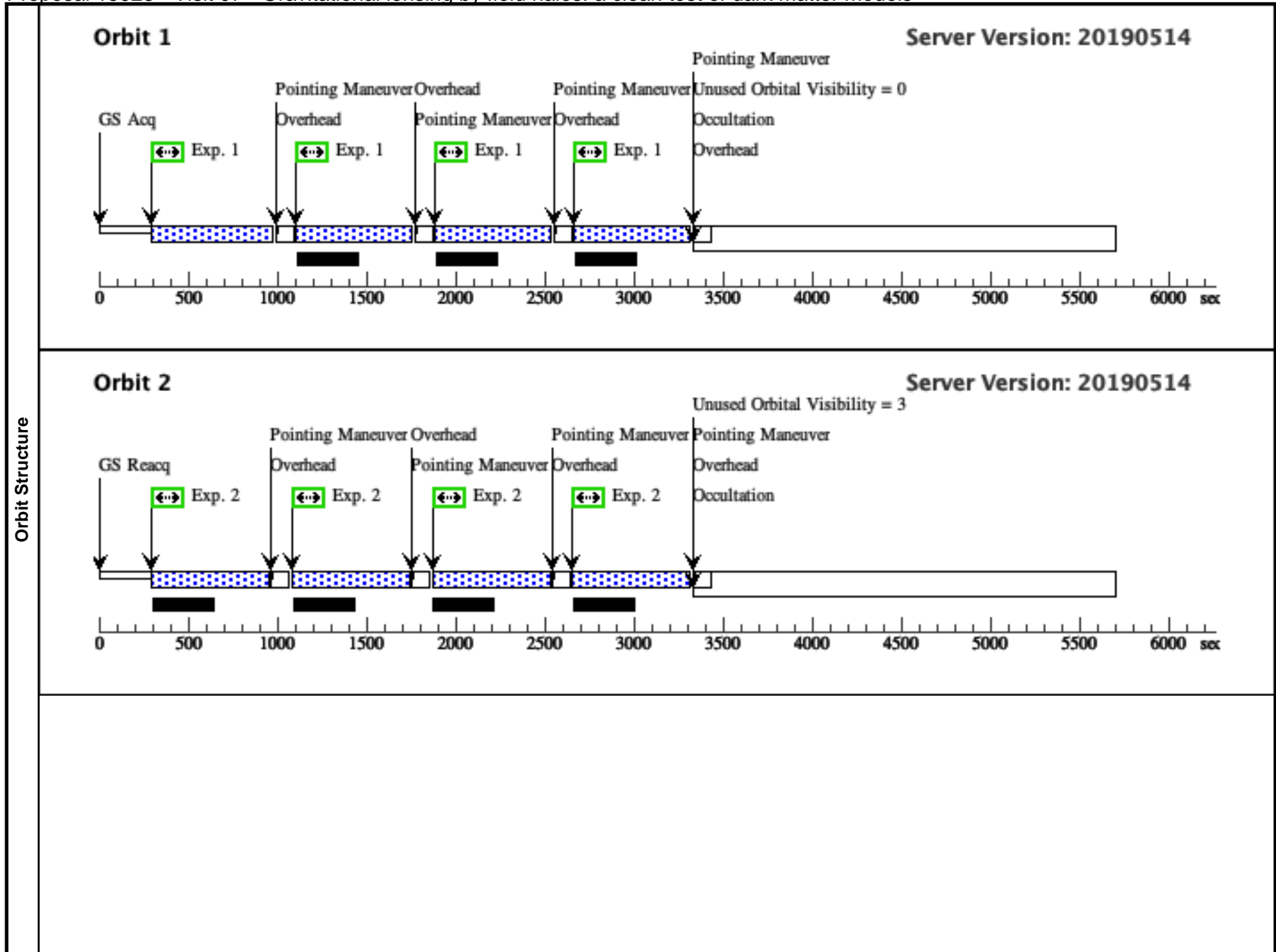
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	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	SDSSJ0918+4518	RA: 09 18 7.8660 (139.5327750d) Dec: +45 18 56.77 (45.31577d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) SDSSJ0918+4518	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 06 (1)	610 Secs (2560 Secs)	
									[==>640.0 Secs (Pattern 1)] [==>640.0 Secs (Pattern 2)] [==>640.0 Secs (Pattern 3)] [==>640.0 Secs (Pattern 4)]	[1]
2		(6) SDSSJ0918+4518	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 06 (1)	617 Secs (2588 Secs)		
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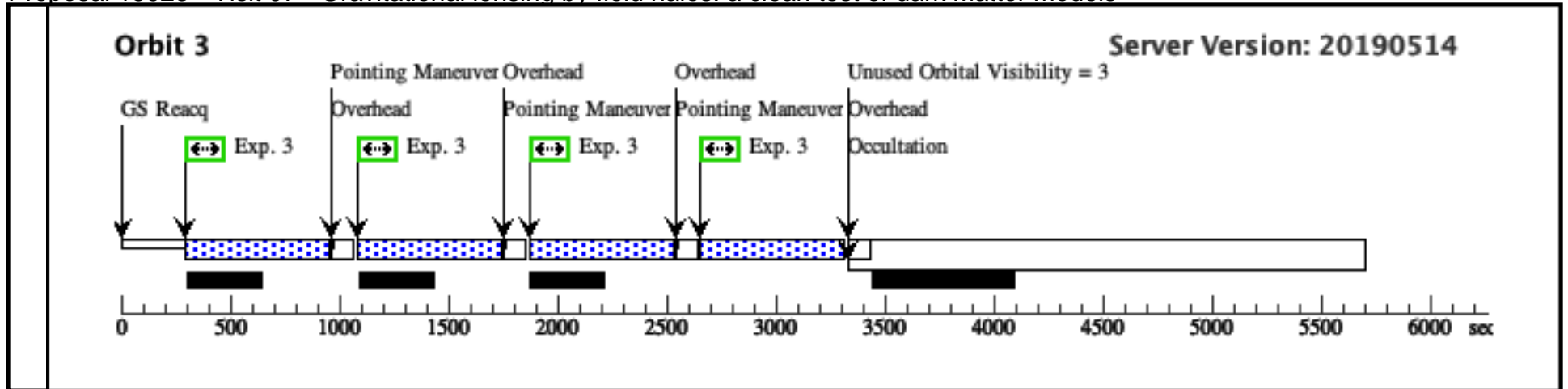


Proposal 15923 - Visit 07 - Gravitational lensing by field halos: a clean test of dark matter models

Fri Dec 06 18:01:43 GMT 2019

Visit	Proposal 15923, Visit 07, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	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		(1), (2), (3)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(7)	SDSSJ0918+5104	RA: 09 18 59.2130 (139.7467208d) Dec: +51 04 52.59 (51.08128d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) SDSSJ0918+5104	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 07 (1)	610 Secs (2608 Secs)	
			4						[==>652.0 Secs (Pattern 1)] [==>652.0 Secs (Pattern 2)] [==>652.0 Secs (Pattern 3)] [==>652.0 Secs (Pattern 4)]	[1]
	2		(7) SDSSJ0918+5104	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 07 (1)	617 Secs (2636 Secs)	
			4					[==>659.0 Secs (Pattern 1)] [==>659.0 Secs (Pattern 2)] [==>659.0 Secs (Pattern 3)] [==>659.0 Secs (Pattern 4)]	[2]	
	3		(7) SDSSJ0918+5104	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 3-3 in Visit 07 (1)	617 Secs (2636 Secs)	
			4					[==>659.0 Secs (Pattern 1)] [==>659.0 Secs (Pattern 2)] [==>659.0 Secs (Pattern 3)] [==>659.0 Secs (Pattern 4)]	[3]	

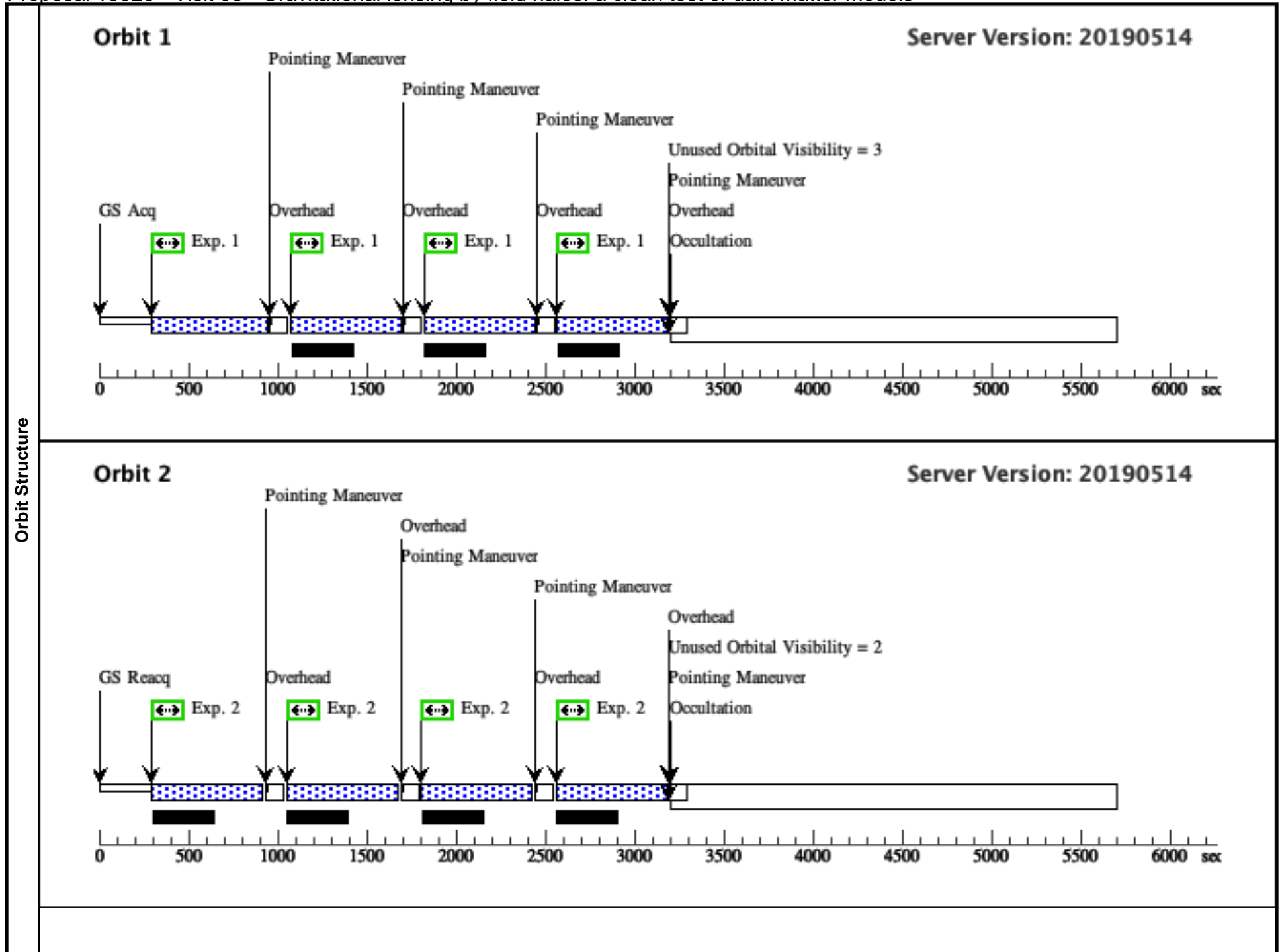


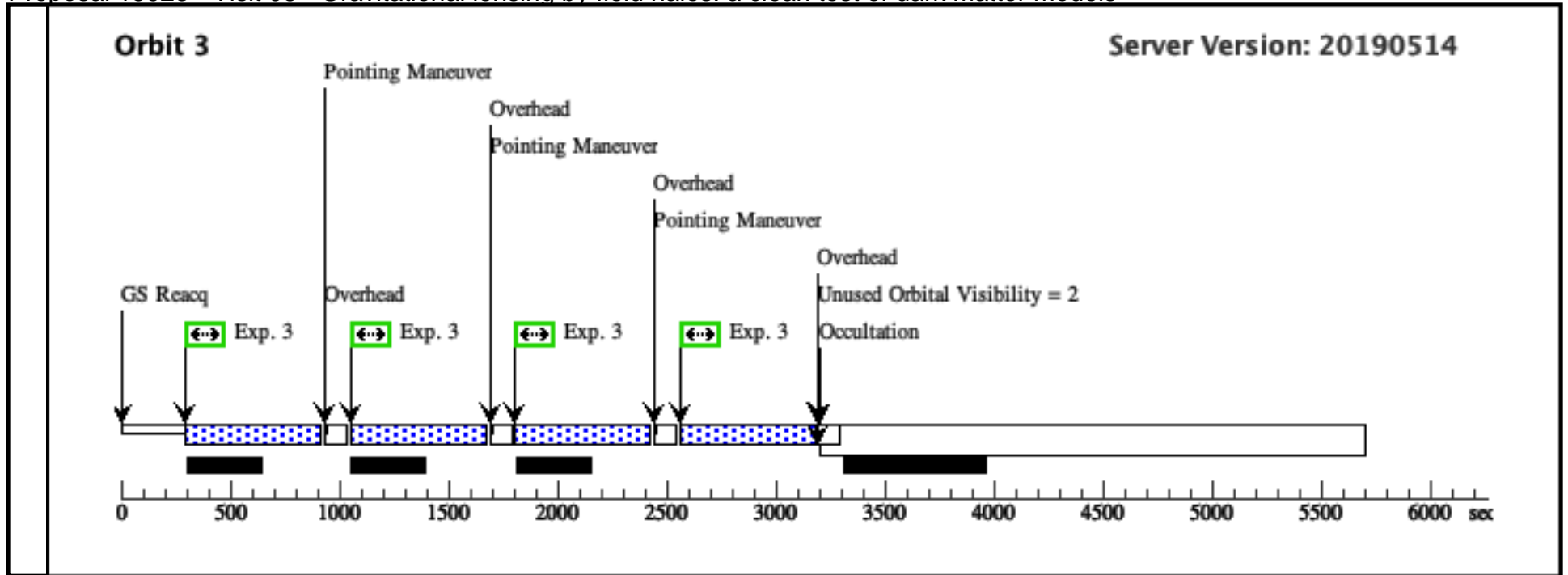


Proposal 15923 - Visit 08 - Gravitational lensing by field halos: a clean test of dark matter models

Fri Dec 06 18:01:43 GMT 2019

Visit	Proposal 15923, Visit 08, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
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Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	SDSSJ1110+3649	RA: 11 10 40.4260 (167.6684417d) Dec: +36 49 24.40 (36.82344d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(8) SDSSJ1110+3649	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 08 (1)	610 Secs (2472 Secs)	
									[==>618.0 Secs (Pattern 1)] [==>618.0 Secs (Pattern 2)] [==>618.0 Secs (Pattern 3)] [==>618.0 Secs (Pattern 4)]	[1]
	2		(8) SDSSJ1110+3649	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 08 (1)	617 Secs (2504 Secs)	
								[==>626.0 Secs (Pattern 1)] [==>626.0 Secs (Pattern 2)] [==>626.0 Secs (Pattern 3)] [==>626.0 Secs (Pattern 4)]	[2]	
3		(8) SDSSJ1110+3649	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 3-3 in Visit 08 (1)	617 Secs (2504 Secs)		
								[==>626.0 Secs (Pattern 1)] [==>626.0 Secs (Pattern 2)] [==>626.0 Secs (Pattern 3)] [==>626.0 Secs (Pattern 4)]	[3]	

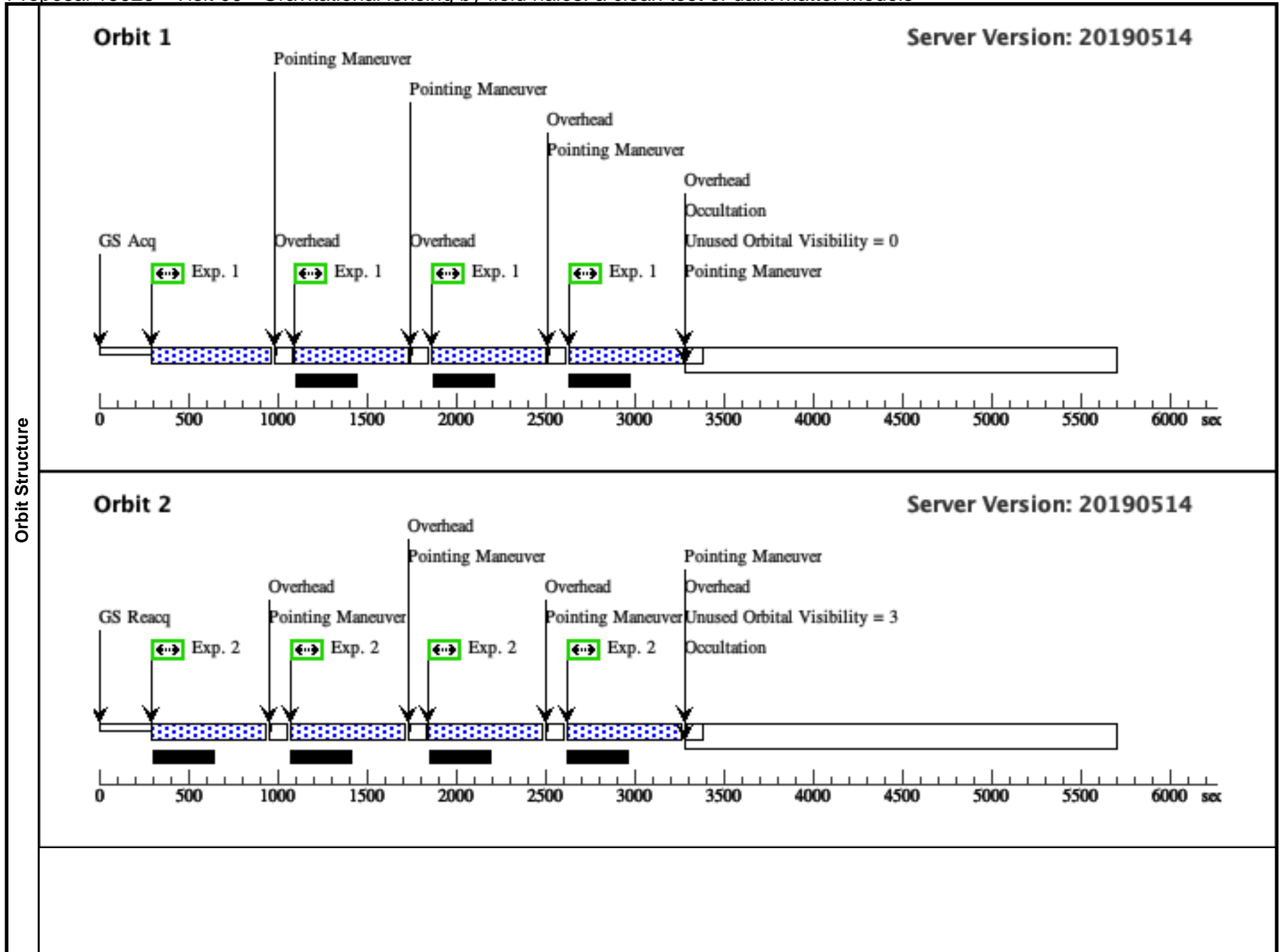


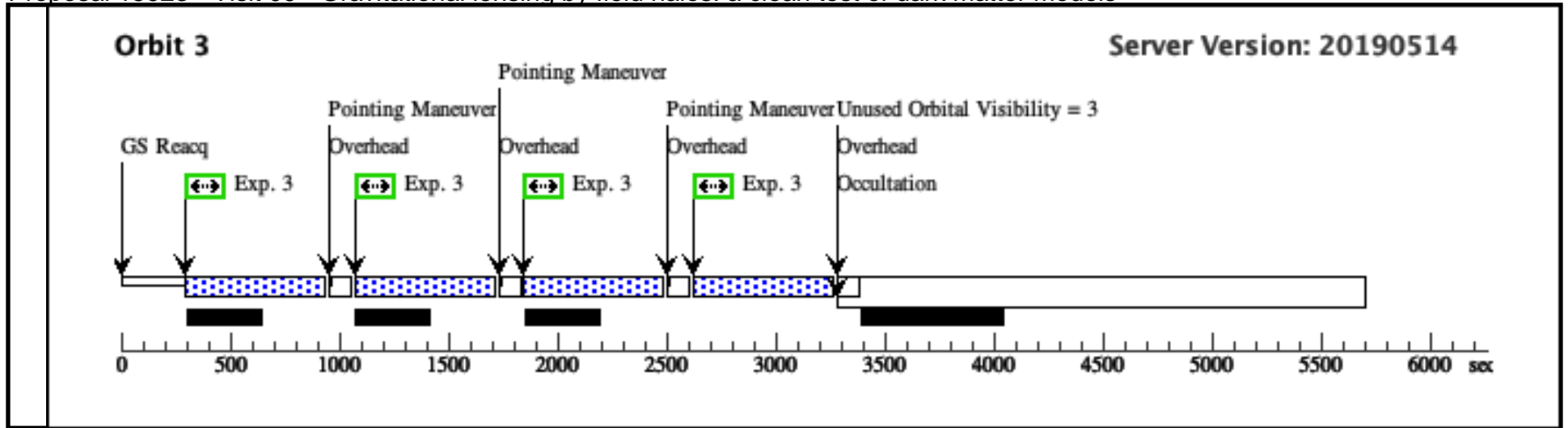


Proposal 15923 - Visit 09 - Gravitational lensing by field halos: a clean test of dark matter models

Fri Dec 06 18:01:44 GMT 2019

Visit	Proposal 15923, Visit 09, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	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		(1), (2), (3)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	SDSSJ1201+4743	RA: 12 01 59.0260 (180.4959417d) Dec: +47 43 23.20 (47.72311d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(9) SDSSJ1201+4743	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 09 (1)	610 Secs (2560 Secs)	
			3						[==>640.0 Secs (Pattern 1)] [==>640.0 Secs (Pattern 2)] [==>640.0 Secs (Pattern 3)] [==>640.0 Secs (Pattern 4)]	[1]
	2		(9) SDSSJ1201+4743	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 09 (1)	617 Secs (2588 Secs)	
			3					[==>647.0 Secs (Pattern 1)] [==>647.0 Secs (Pattern 2)] [==>647.0 Secs (Pattern 3)] [==>647.0 Secs (Pattern 4)]	[2]	
	3		(9) SDSSJ1201+4743	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 3-3 in Visit 09 (1)	617 Secs (2588 Secs)	
			3					[==>647.0 Secs (Pattern 1)] [==>647.0 Secs (Pattern 2)] [==>647.0 Secs (Pattern 3)] [==>647.0 Secs (Pattern 4)]	[3]	

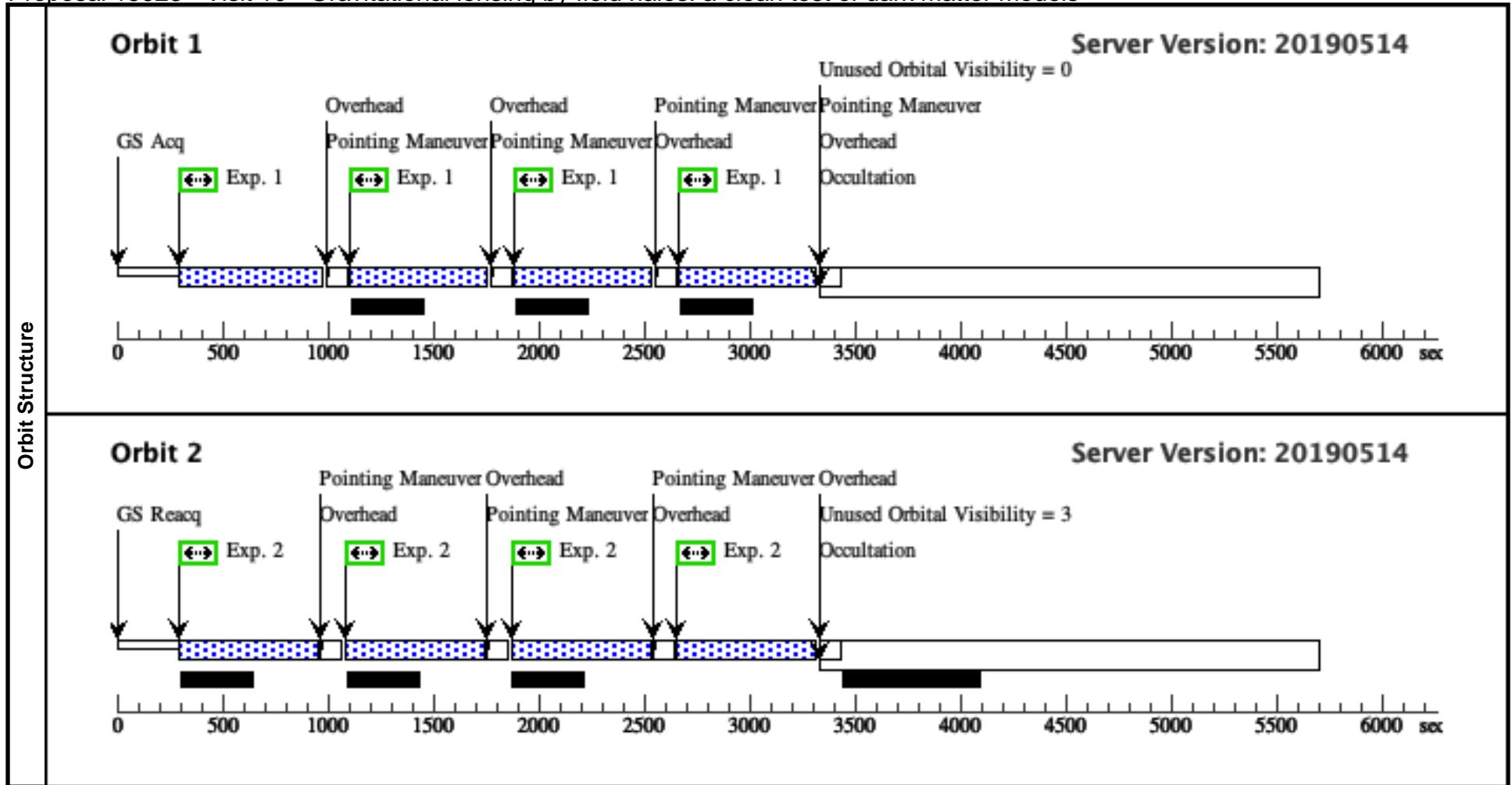




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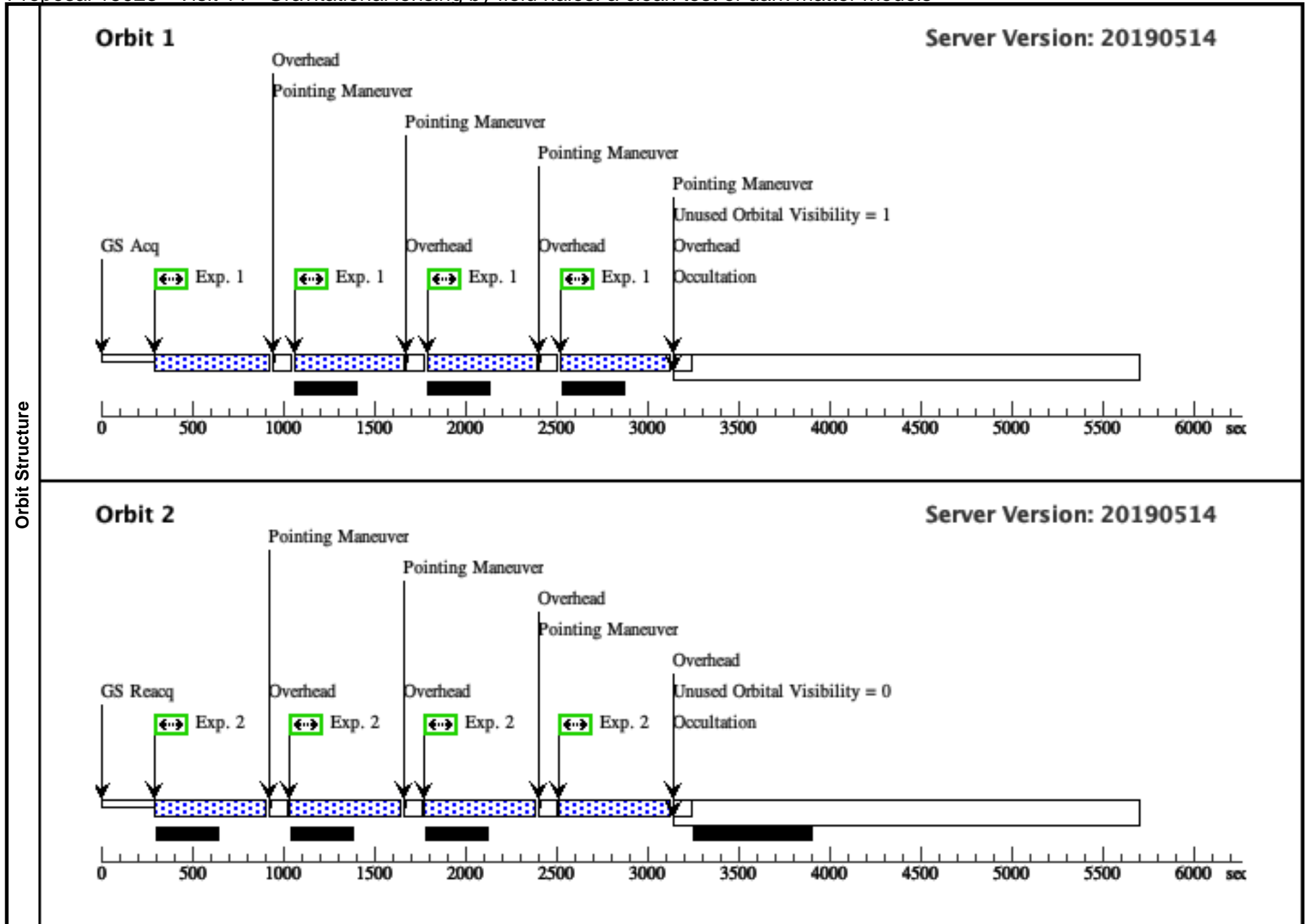
Visit	Proposal 15923, Visit 10, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1), (2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(10)	SDSSJ1226+5457	RA: 12 26 56.4590 (186.7352458d) Dec: +54 57 39.05 (54.96085d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(10) SDSSJ1226+5457	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 10 (1)	610 Secs (2608 Secs)	
									[==>652.0 Secs (Pattern 1)] [==>652.0 Secs (Pattern 2)] [==>652.0 Secs (Pattern 3)] [==>652.0 Secs (Pattern 4)]	[1]
2		(10) SDSSJ1226+5457	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 10 (1)	617 Secs (2636 Secs)		
								[==>659.0 Secs (Pattern 1)] [==>659.0 Secs (Pattern 2)] [==>659.0 Secs (Pattern 3)] [==>659.0 Secs (Pattern 4)]	[2]	



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Visit	Proposal 15923, Visit 11, failed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	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				(1), (2)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(11)	SDSSJ2342-0120	RA: 23 42 48.6840 (355.7028500d) Dec: -01 20 32.54 (-1.34237d) Equinox: J2000				V=17	Reference Frame: ICRS		
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(11) SDSSJ2342-0120	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 1-1 in Visit 11 (1)	610 Secs (2416 Secs)	
			0						[==>604.0 Secs (Pattern 1)] [==>604.0 Secs (Pattern 2)] [==>604.0 Secs (Pattern 3)] [==>604.0 Secs (Pattern 4)]	[1]
	2		(11) SDSSJ2342-0120	WFC3/UVIS, ACCUM, UVIS1	F606W			Pattern 1, Exps 2-2 in Visit 11 (1)	617 Secs (2448 Secs)	
			0						[==>612.0 Secs (Pattern 1)] [==>612.0 Secs (Pattern 2)] [==>612.0 Secs (Pattern 3)] [==>612.0 Secs (Pattern 4)]	[2]



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Visit	Proposal 15923, Visit 62 Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	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		(1), (2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(11)	SDSSJ2342-0120	RA: 23 42 48.6840 (355.7028500d) Dec: -01 20 32.54 (-1.34237d) Equinox: J2000		V=17	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[GRAVITATIONAL LENS]									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(11) SDSSJ2342-0120	WFC3/UVIS, ACCUM, UVIS1	F606W				Pattern 1, Exps 1-1 in Visit 62 (1)	610 Secs (2416 Secs) [==>604.0 Secs (Pattern 1)] [==>604.0 Secs (Pattern 2)] [==>604.0 Secs (Pattern 3)] [==>604.0 Secs (Pattern 4)]
2		(11) SDSSJ2342-0120	WFC3/UVIS, ACCUM, UVIS1	F606W				Pattern 1, Exps 2-2 in Visit 62 (1)	617 Secs (2448 Secs) [==>612.0 Secs (Pattern 1)] [==>612.0 Secs (Pattern 2)] [==>612.0 Secs (Pattern 3)] [==>612.0 Secs (Pattern 4)]	[2]

