



12898 - Discovering the Dark Side of CDM Substructure

Cycle: 20, 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) SDSS-J025245.21+003958.3	WFC3/UVIS	1	31-Oct-2012 21:11:01.0	yes
02	(1) SDSS-J025245.21+003958.3	WFC3/UVIS	1	31-Oct-2012 21:11:09.0	yes
03	(2) SDSS-J073728.44+321618.6	WFC3/UVIS	1	31-Oct-2012 21:11:14.0	yes
04	(2) SDSS-J073728.44+321618.6	WFC3/UVIS	1	31-Oct-2012 21:11:19.0	yes
05	(3) SDSS-J090315.19+411609.2	WFC3/UVIS	1	31-Oct-2012 21:11:24.0	yes
06	(3) SDSS-J090315.19+411609.2	WFC3/UVIS	1	31-Oct-2012 21:11:29.0	yes

Proposal 12898 (STScI Edit Number: 2, Created: Wednesday, October 31, 2012 8:13:28 PM EST) - Overview

<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	(3) SDSS-J090315.19+411609.2	WFC3/UVIS	1	31-Oct-2012 21:11:34.0	yes
08	(3) SDSS-J090315.19+411609.2	WFC3/UVIS	1	31-Oct-2012 21:11:39.0	yes
09	(3) SDSS-J090315.19+411609.2	WFC3/UVIS	1	31-Oct-2012 21:11:44.0	yes
10	(3) SDSS-J090315.19+411609.2	WFC3/UVIS	1	31-Oct-2012 21:11:51.0	yes
11	(4) SDSS-J091205.31+002901.1	WFC3/UVIS	1	31-Oct-2012 21:11:56.0	yes
12	(4) SDSS-J091205.31+002901.1	WFC3/UVIS	1	31-Oct-2012 21:12:00.0	yes
13	(4) SDSS-J091205.31+002901.1	WFC3/UVIS	1	31-Oct-2012 21:12:05.0	yes
14	(4) SDSS-J091205.31+002901.1	WFC3/UVIS	1	31-Oct-2012 21:12:09.0	yes
15	(4) SDSS-J091205.31+002901.1	WFC3/UVIS	1	31-Oct-2012 21:12:14.0	yes
16	(5) SDSS-J095629.78+510006.6	WFC3/UVIS	1	31-Oct-2012 21:12:18.0	yes
17	(5) SDSS-J095629.78+510006.6	WFC3/UVIS	1	31-Oct-2012 21:12:23.0	yes
18	(6) SDSS-J095944.07+041017.0	WFC3/UVIS	1	31-Oct-2012 21:12:27.0	yes
19	(7) SDSS-J143004.10+410557.1	WFC3/UVIS	1	31-Oct-2012 21:12:32.0	yes
20	(7) SDSS-J143004.10+410557.1	WFC3/UVIS	1	31-Oct-2012 21:12:36.0	yes
21	(8) SDSS-J162746.44-005357.5	WFC3/UVIS	1	31-Oct-2012 21:12:41.0	yes
22	(8) SDSS-J162746.44-005357.5	WFC3/UVIS	1	31-Oct-2012 21:12:45.0	yes
23	(8) SDSS-J162746.44-005357.5	WFC3/UVIS	1	31-Oct-2012 21:12:50.0	yes
24	(9) SDSS-J163028.16+452036.2	WFC3/UVIS	1	31-Oct-2012 21:12:54.0	yes
25	(9) SDSS-J163028.16+452036.2	WFC3/UVIS	1	31-Oct-2012 21:12:59.0	yes
26	(9) SDSS-J163028.16+452036.2	WFC3/UVIS	1	31-Oct-2012 21:13:04.0	yes
27	(9) SDSS-J163028.16+452036.2	WFC3/UVIS	1	31-Oct-2012 21:13:08.0	yes
28	(9) SDSS-J163028.16+452036.2	WFC3/UVIS	1	31-Oct-2012 21:13:12.0	yes
29	(10) SDSS-J234111.57+000018.6	WFC3/UVIS	1	31-Oct-2012 21:13:17.0	yes
30	(10) SDSS-J234111.57+000018.6	WFC3/UVIS	1	31-Oct-2012 21:13:21.0	yes

30 Total Orbits Used

ABSTRACT

The existence of mass substructure is an inevitable consequence of the LCDM paradigm. Despite this clear theoretical prediction, a glaring discrepancy with the number of luminous satellites around the Milky Way (MW) has been identified, i.e. the "missing satellite problem". Notwithstanding great progress to address this problem, it remains unsolved. Moreover, the MW could be a biased environment, not representative of the typical universe.

Surface brightness aberrations of gravitationally lensed images provide a complementary channel to detect substructure beyond the local Universe in mostly massive early-type galaxies. Simulations suggest a substructure mass fraction of $f_{\text{sub}} \leq 1\%$ inside the inner projected 5-10 kpc or around 5-10% inside the virial radius. Although the observed (flux-ratio/brightness) anomalies/aberrations in lenses can be explained by the presence of this mass substructure, its high rate requires a larger inferred fraction of 2-3%.

To resolve these open issues convincingly, we propose to observe highly magnified Einstein rings/arcs in the ultra-violet, where the source is highly structured, to maximize sensitivity to dark substructures through surface brightness aberrations (i.e. the equivalent of the well-known flux-ratio anomalies).

Our simulations, modeling and statistical analyses show that our selected sample of 10 SLACS lens systems can pinpoint dark substructures down to 3×10^8 solar masses ($\sim 10^{-4}$ of the ETG virial mass) and, for the first time, determine their mass fraction to down to $f_{\text{sub}} \sim 1\%$, at $>99\%$ CL.

We request 30 orbits with HST WFC3-F390W to accomplish this goal.

OBSERVING DESCRIPTION

We aim to observe 10 SLACS lens system with WFC3-F390W to obtain detailed images of their star-forming sources. These data will be used to place constraints in surface-brightness anomalies caused by mass structure in the lens galaxy. We perform a simple 4-point dither each orbit and a post-flash to alleviate issues with CTE.

REAL TIME JUSTIFICATION

N/A

CALIBRATION JUSTIFICATION

N/A

ADDITIONAL COMMENTS

N/A

Proposal 12898 - Visit 01 - Discovering the Dark Side of CDM Substructure

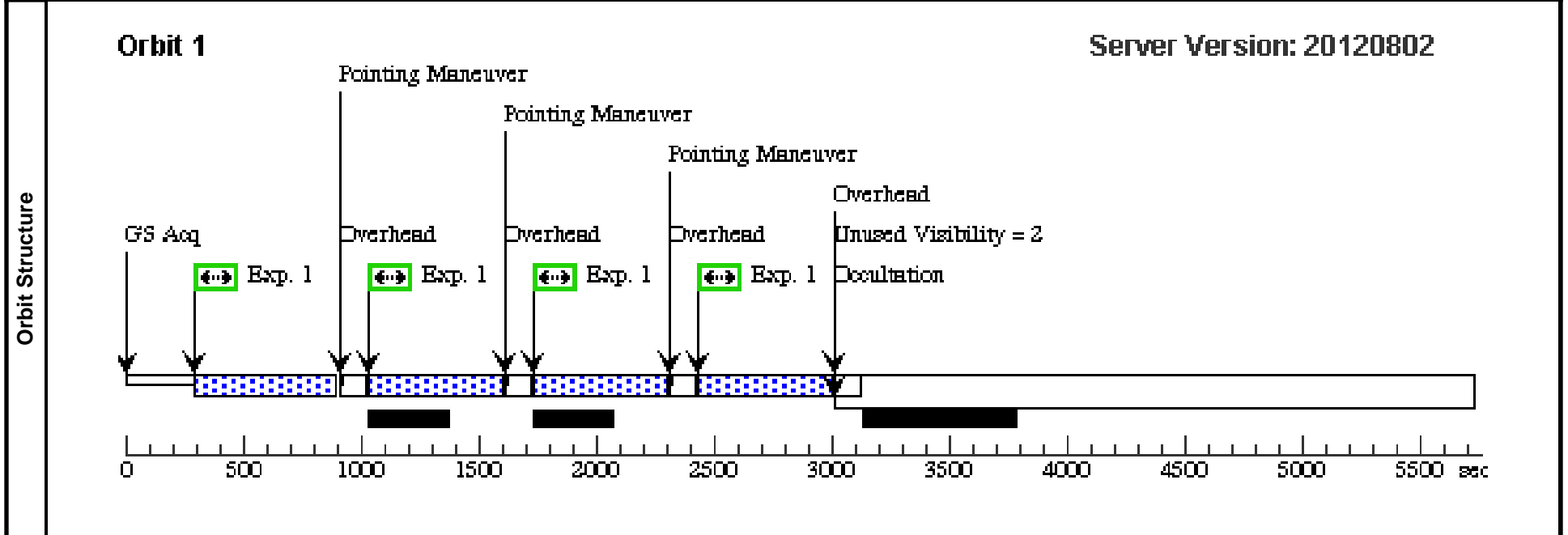
Thu Nov 01 01:13:29 GMT 2012

Visit	Proposal 12898, Visit 01, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	SDSS-J025245.21+003958.3	RA: 02 52 45.2200 (43.1884167d) Dec: +00 39 58.30 (.66619d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.2	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) SDSS-J025245.21+003958.3	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 01 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 02 - Discovering the Dark Side of CDM Substructure

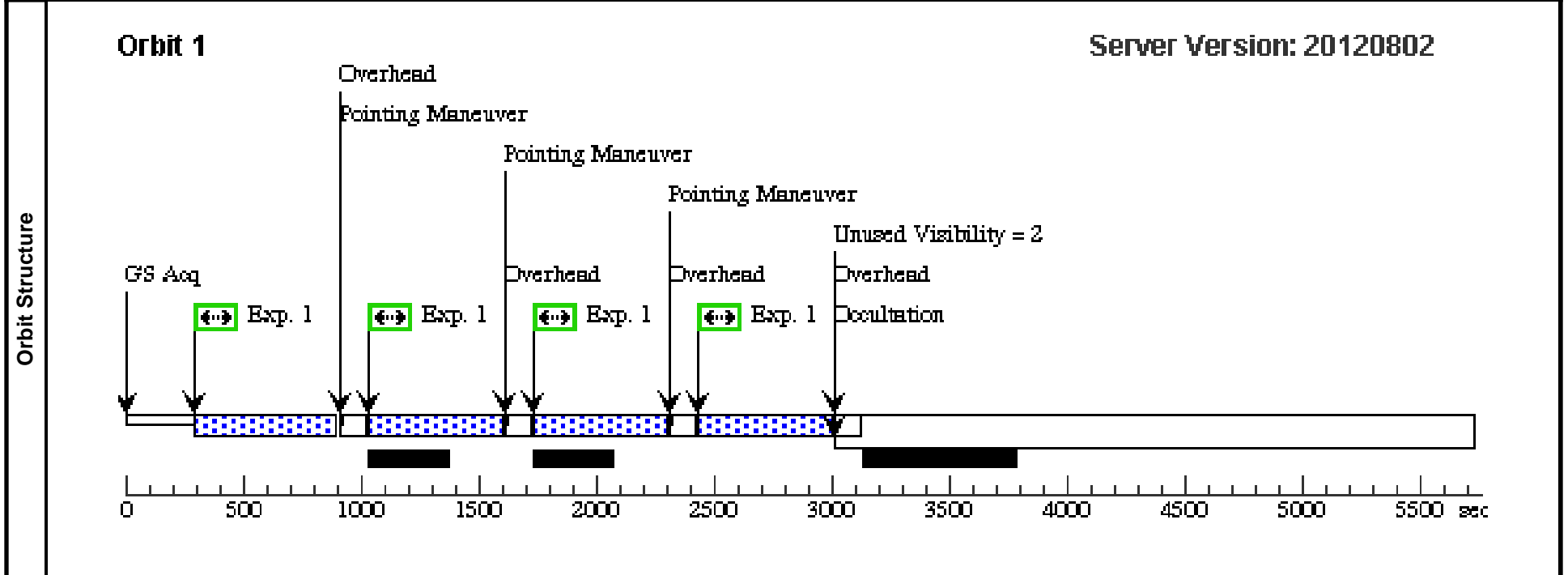
Thu Nov 01 01:13:30 GMT 2012

Visit	Proposal 12898, Visit 02, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 01		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	SDSS-J025245.21+003958.3	RA: 02 52 45.2200 (43.1884167d) Dec: +00 39 58.30 (.66619d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.2	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) SDSS-J025245.21+003958.3	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 02 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 03 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:31 GMT 2012

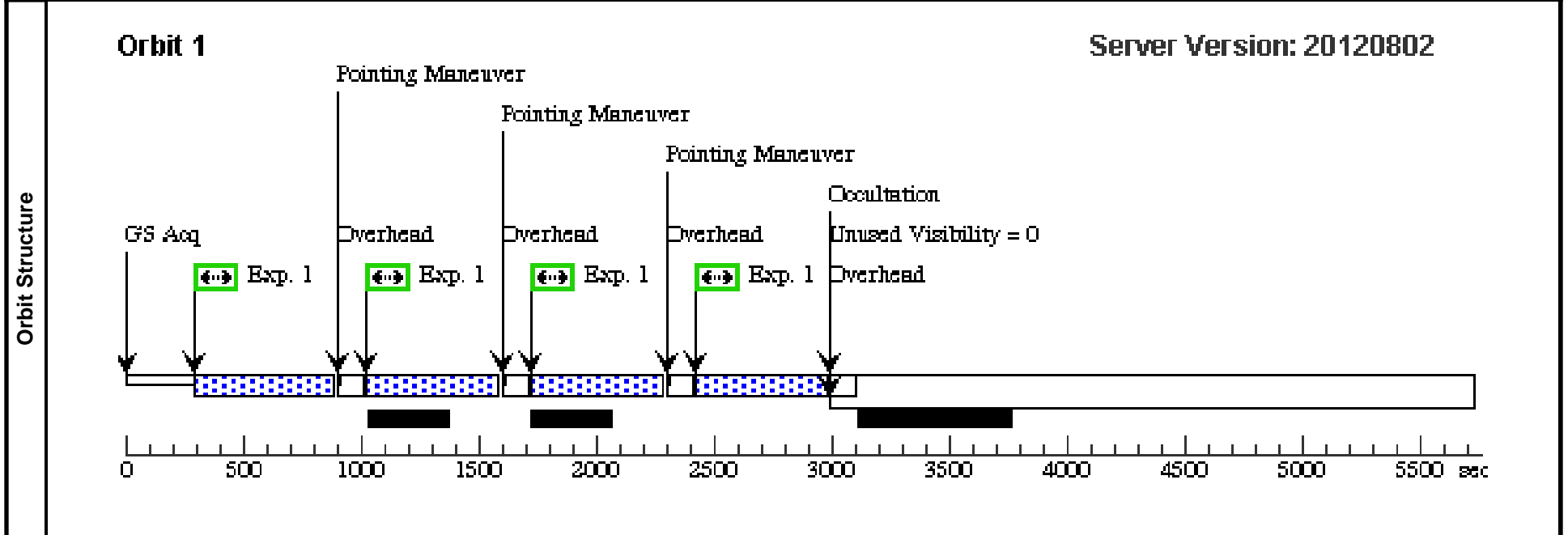
Visit	Proposal 12898, Visit 03, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%		

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	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	SDSS-J073728.44+321618.6	RA: 07 37 28.4400 (114.3685000d) Dec: +32 16 18.60 (32.27183d) Equinox: J2000		V=(?) Source </sq.arcsec> = 21.0	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) SDSS-J073728.44+321618.6	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 03 (1)	200 Secs [=>565.0 Secs (Pattern 1)] [=>565.0 Secs (Pattern 2)] [=>565.0 Secs (Pattern 3)] [=>565.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 04 - Discovering the Dark Side of CDM Substructure

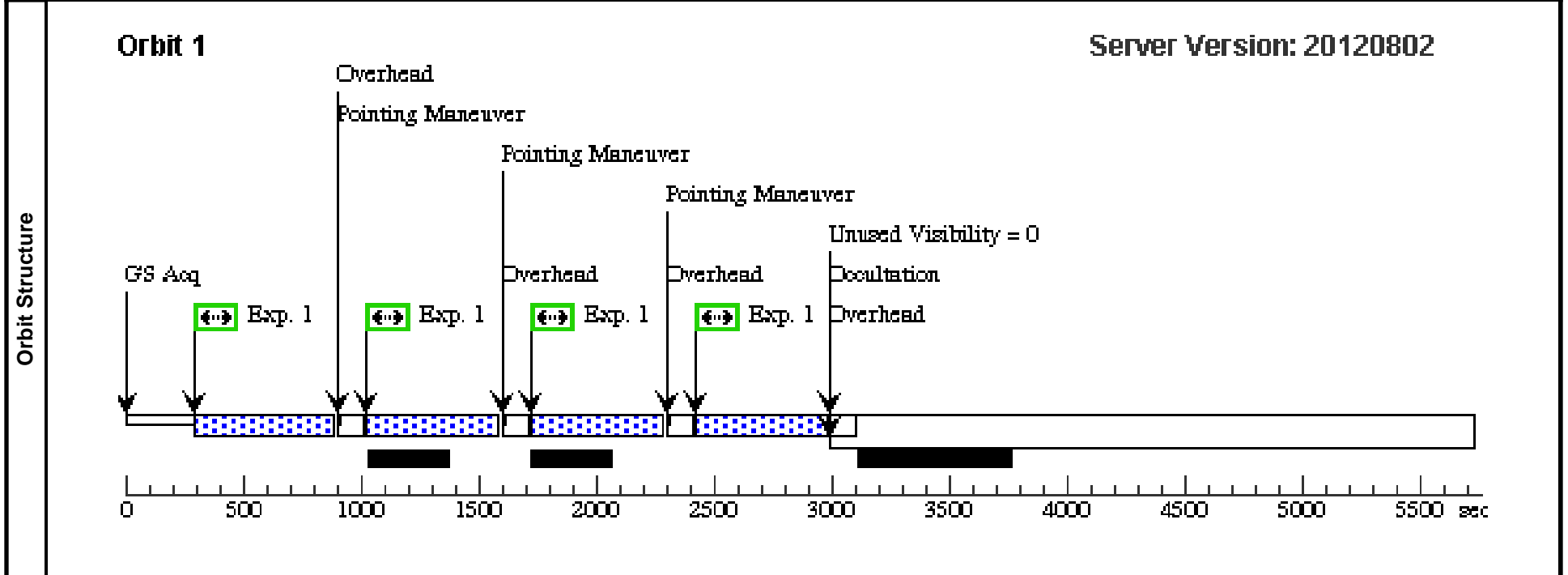
Thu Nov 01 01:13:32 GMT 2012

Visit	Proposal 12898, Visit 04, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 03		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	SDSS-J073728.44+321618.6	RA: 07 37 28.4400 (114.3685000d) Dec: +32 16 18.60 (32.27183d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.0	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

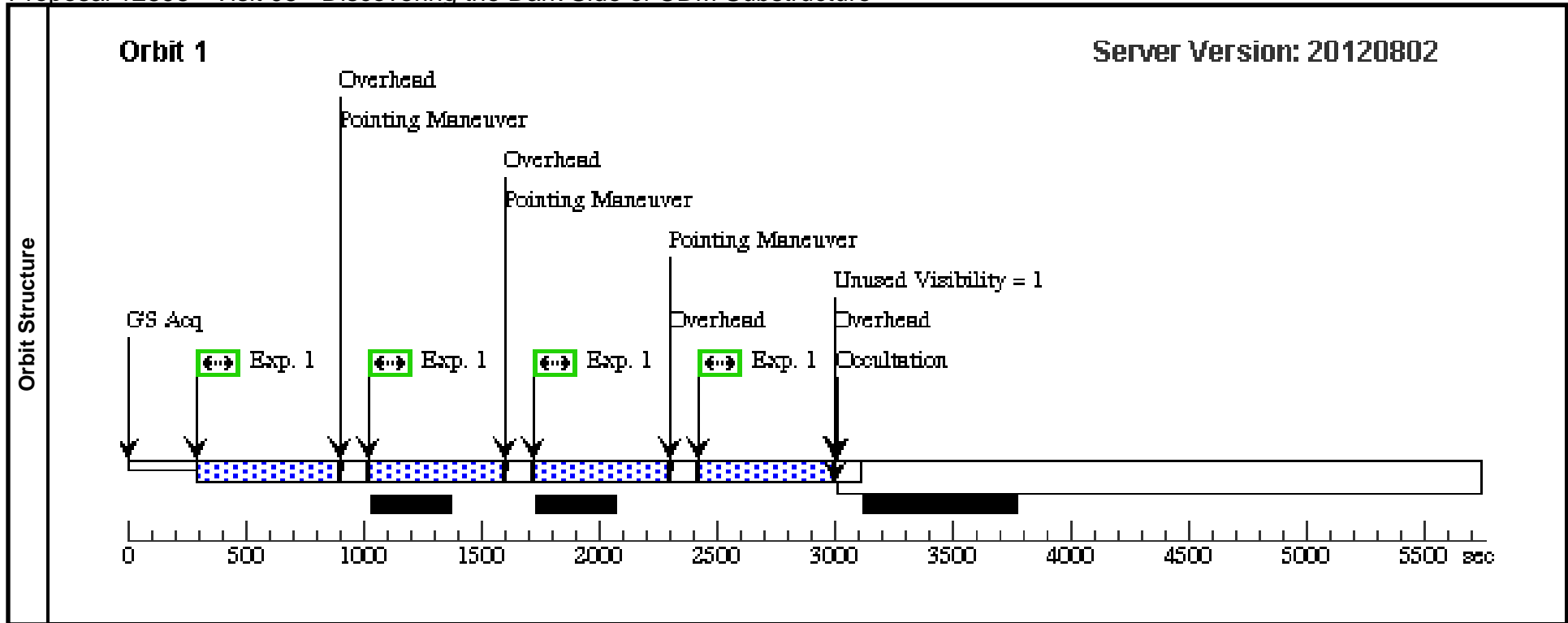
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) SDSS-J073728.44+321618.6	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 04 (1)	200 Secs [==>565.0 Secs (Pattern 1)] [==>565.0 Secs (Pattern 2)] [==>565.0 Secs (Pattern 3)] [==>565.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 05 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:33 GMT 2012

Visit	Proposal 12898, Visit 05, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%									
	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)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	SDSS-J090315.19+411609.2	RA: 09 03 15.1900 (135.8132917d) Dec: +41 16 9.20 (41.26922d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.5	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SDSS-J090315.19+411609.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5			Pattern 1, Exps 1-1 in Visit 05 (1) 200 Secs [==>568.0 Secs (Pattern 1)] [==>568.0 Secs (Pattern 2)] [==>568.0 Secs (Pattern 3)] [==>568.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 06 - Discovering the Dark Side of CDM Substructure

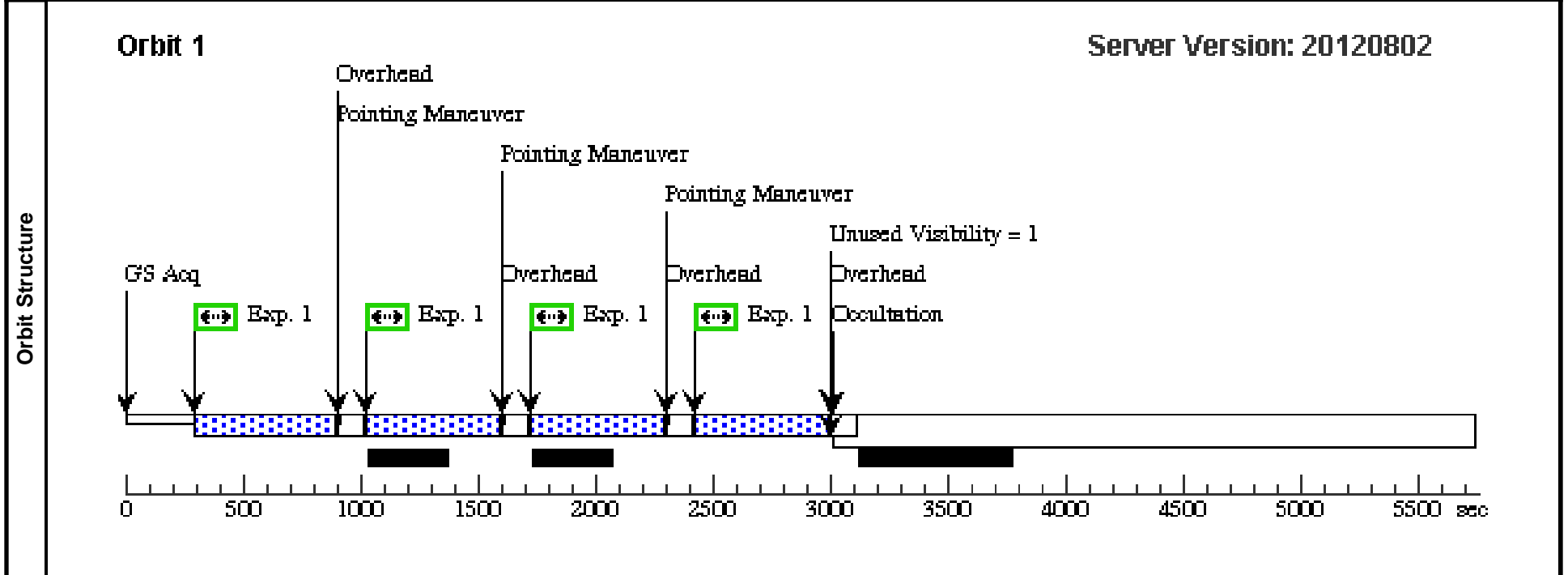
Thu Nov 01 01:13:34 GMT 2012

Visit	Proposal 12898, Visit 06, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 05		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112		(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	SDSS-J090315.19+411609.2	RA: 09 03 15.1900 (135.8132917d) Dec: +41 16 9.20 (41.26922d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.5	Reference Frame: ICRS
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>						

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SDSS-J090315.19+411609.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 06 (1)	200 Secs [=>568.0 Secs (Pattern 1)] [=>568.0 Secs (Pattern 2)] [=>568.0 Secs (Pattern 3)] [=>568.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 07 - Discovering the Dark Side of CDM Substructure

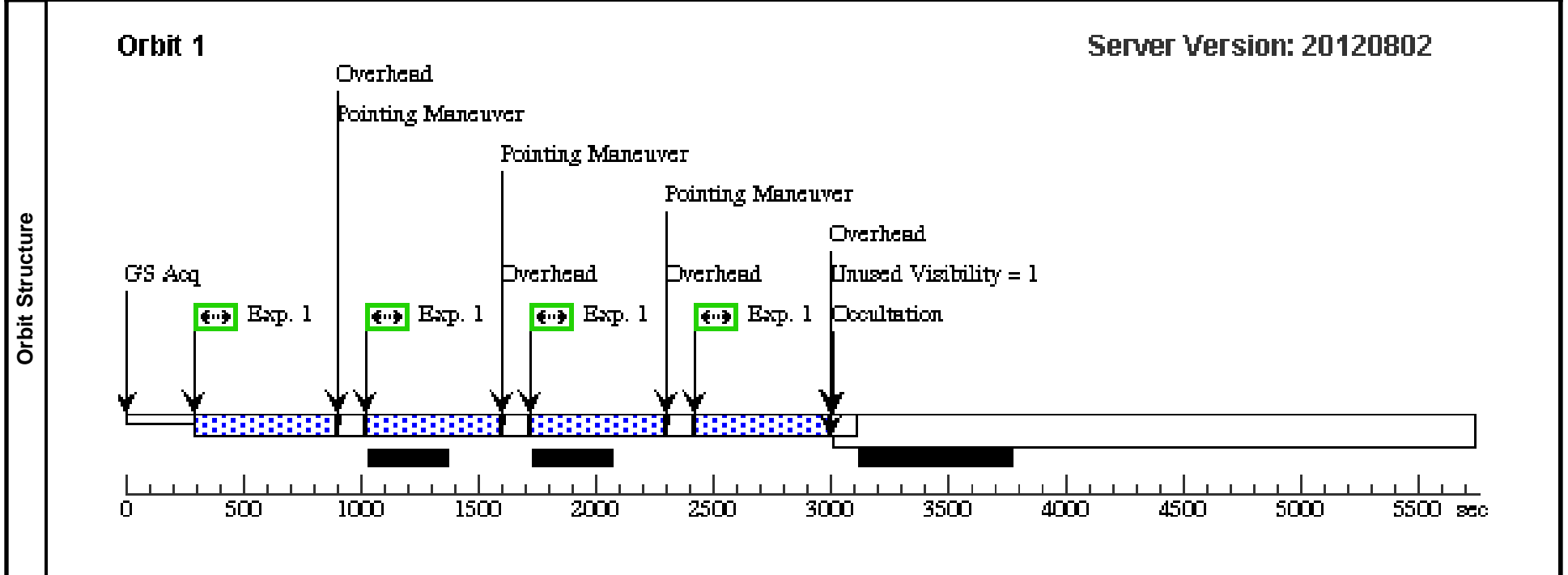
Thu Nov 01 01:13:35 GMT 2012

Visit	Proposal 12898, Visit 07, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 05		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	SDSS-J090315.19+411609.2	RA: 09 03 15.1900 (135.8132917d) Dec: +41 16 9.20 (41.26922d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.5	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

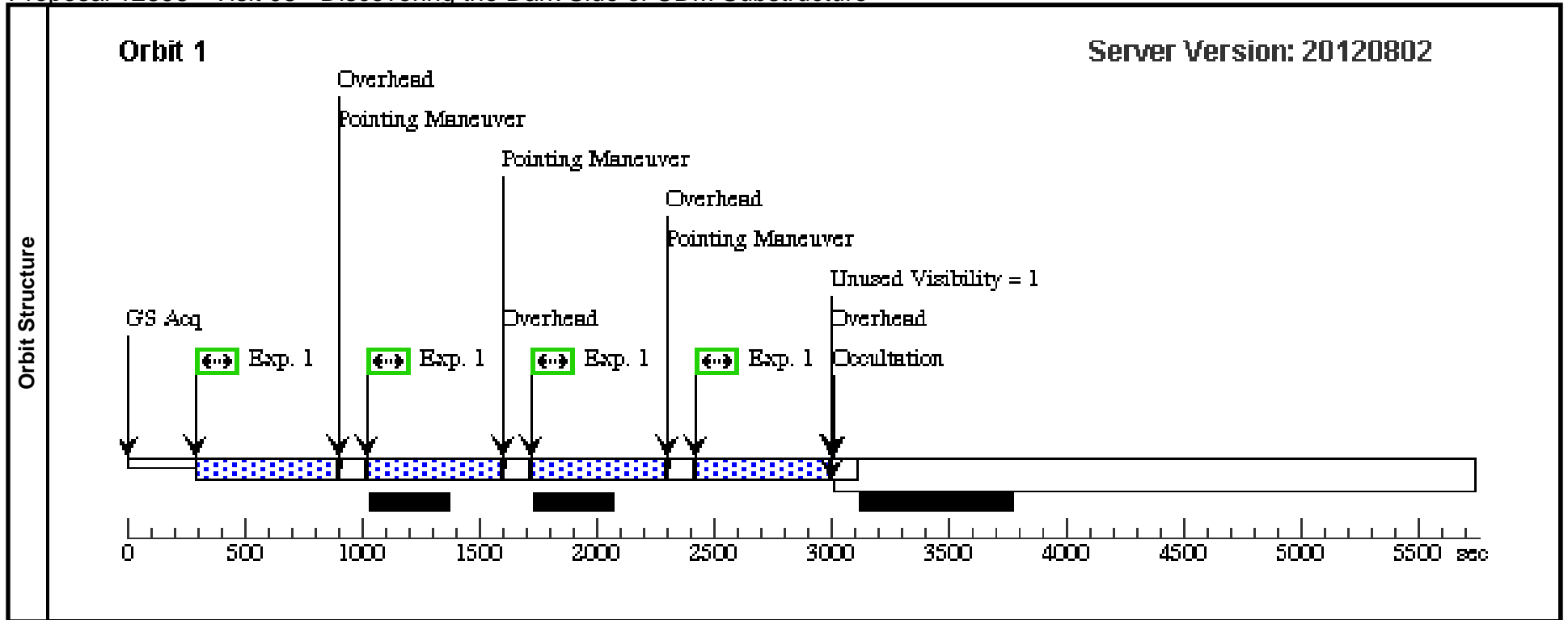
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SDSS-J090315.19+411609.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 07 (1)	200 Secs [==>568.0 Secs (Pattern 1)] [==>568.0 Secs (Pattern 2)] [==>568.0 Secs (Pattern 3)] [==>568.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 08 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:36 GMT 2012

Visit	Proposal 12898, Visit 08, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 05									
	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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	SDSS-J090315.19+411609.2	RA: 09 03 15.1900 (135.8132917d) Dec: +41 16 9.20 (41.26922d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.5	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SDSS-J090315.19+411609.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 08 (1)	200 Secs [==>568.0 Secs (Pattern 1)] [==>568.0 Secs (Pattern 2)] [==>568.0 Secs (Pattern 3)] [==>568.0 Secs (Pattern 4)]	[1]



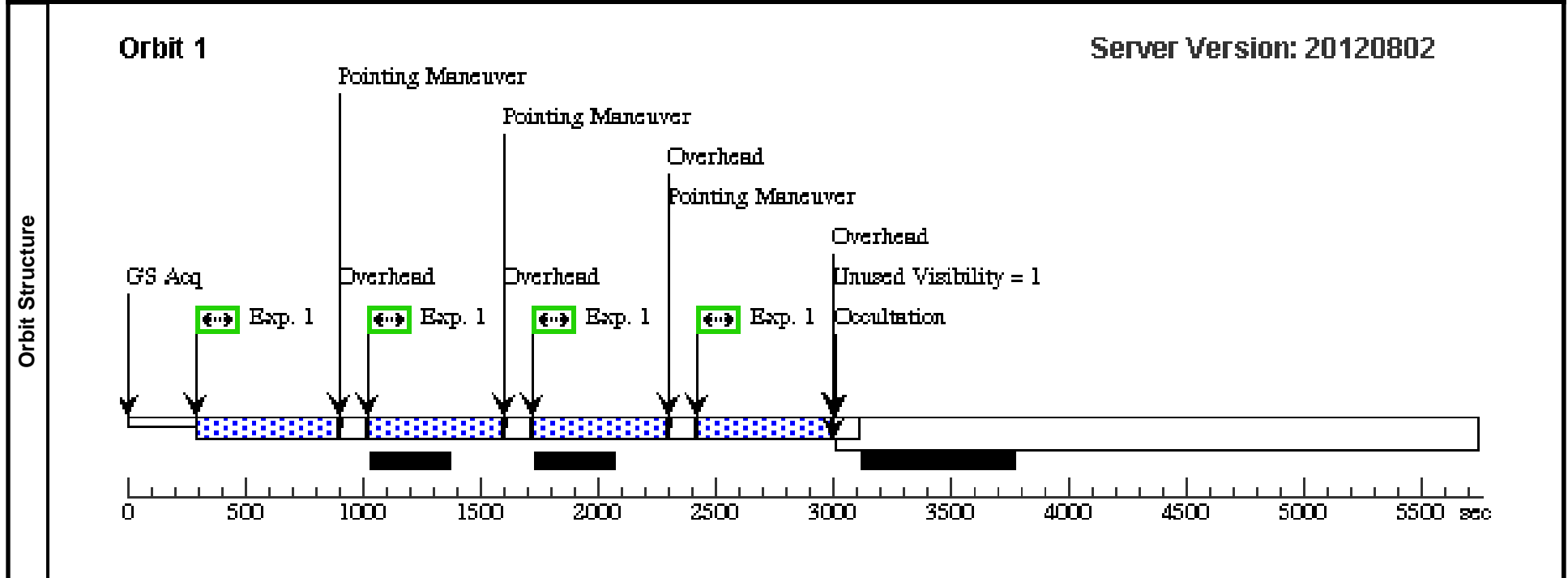
Visit	Proposal 12898, Visit 09, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 05		

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	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	SDSS-J090315.19+411609.2	RA: 09 03 15.1900 (135.8132917d) Dec: +41 16 9.20 (41.26922d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.5	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

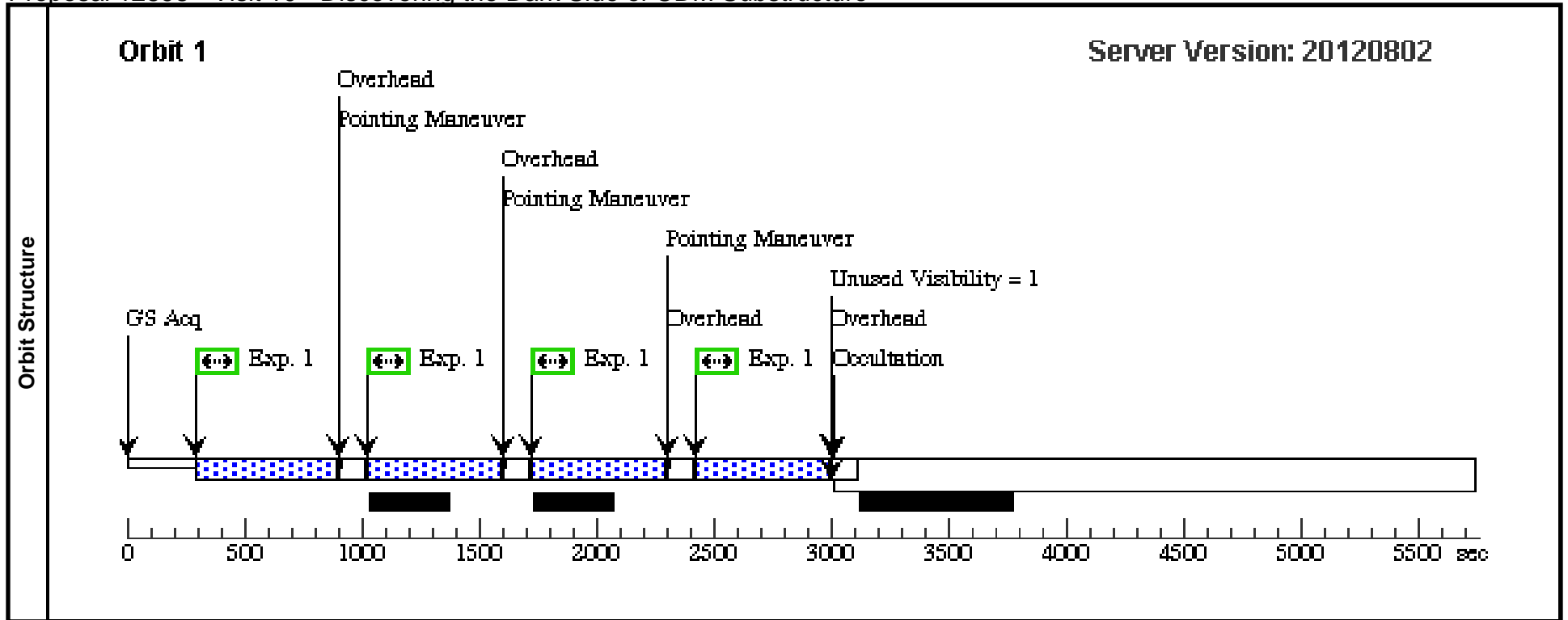
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SDSS-J090315.19+411609.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 09 (1)	200 Secs [==>568.0 Secs (Pattern 1)] [==>568.0 Secs (Pattern 2)] [==>568.0 Secs (Pattern 3)] [==>568.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 10 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:38 GMT 2012

Visit	Proposal 12898, Visit 10, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 05									
	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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	SDSS-J090315.19+411609.2	RA: 09 03 15.1900 (135.8132917d) Dec: +41 16 9.20 (41.26922d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.5	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SDSS-J090315.19+411609.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 10 (1)	200 Secs [==>568.0 Secs (Pattern 1)] [==>568.0 Secs (Pattern 2)] [==>568.0 Secs (Pattern 3)] [==>568.0 Secs (Pattern 4)]	[1]

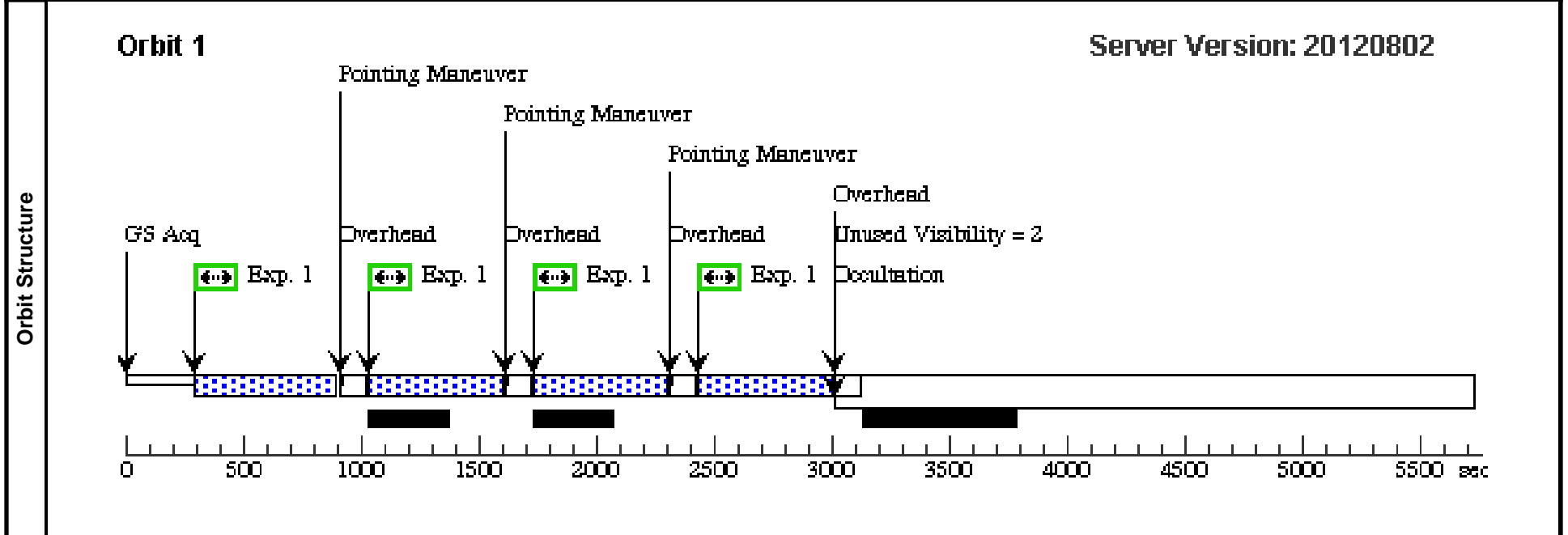


Visit	Proposal 12898, Visit 11, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(4)	SDSS-J091205.31+002901.1	RA: 09 12 5.3100 (138.0221250d) Dec: +00 29 1.20 (.48367d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.4	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

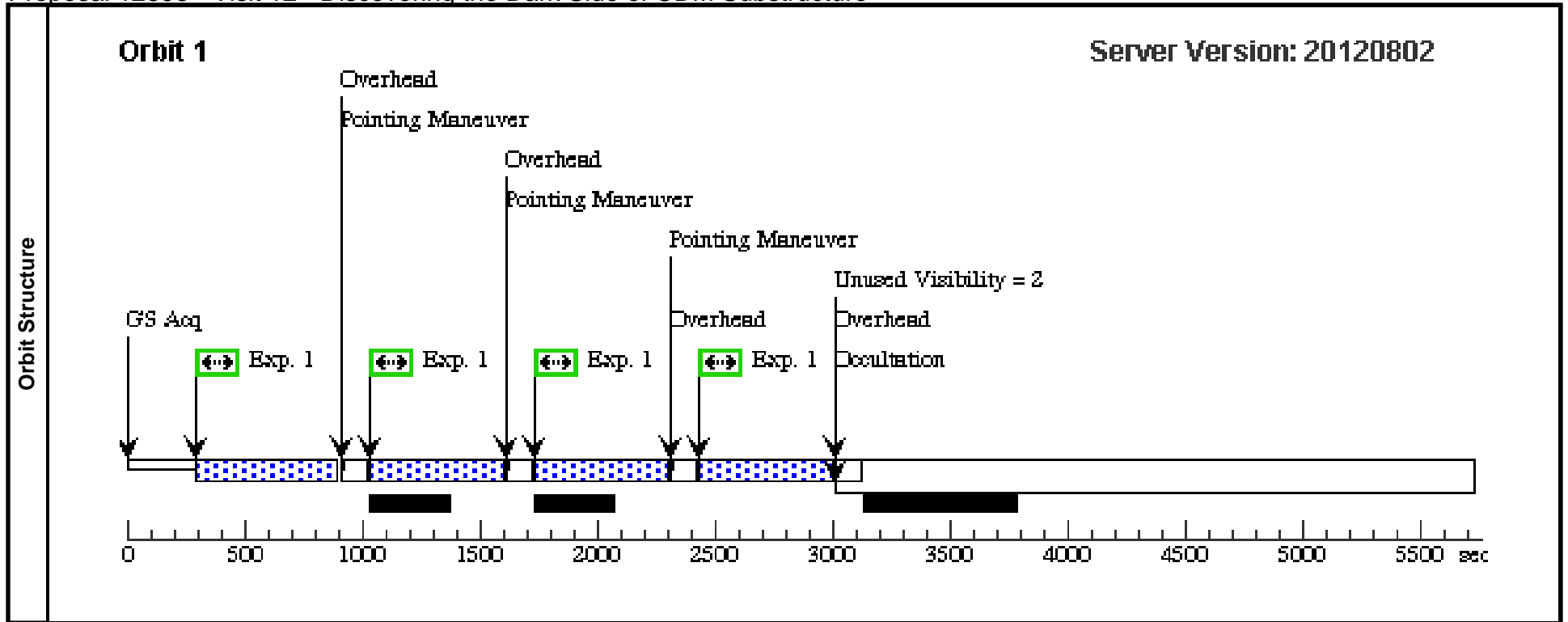
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) SDSS-J091205.31+002901.1	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 11 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 12 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:40 GMT 2012

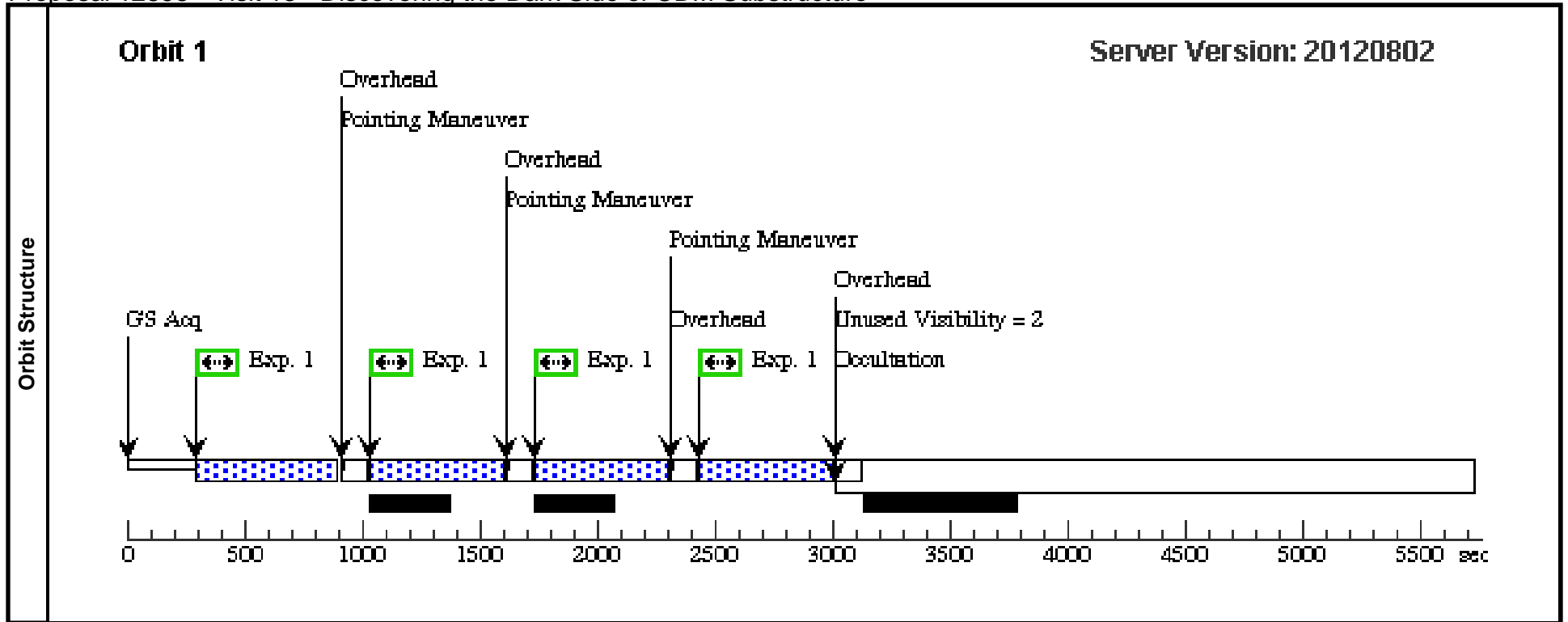
Visit	Proposal 12898, Visit 12, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 11									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of 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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	SDSS-J091205.31+002901.1	RA: 09 12 5.3100 (138.0221250d) Dec: +00 29 1.20 (.48367d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.4	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) SDSS-J091205.31+002901.1	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 12 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 13 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:41 GMT 2012

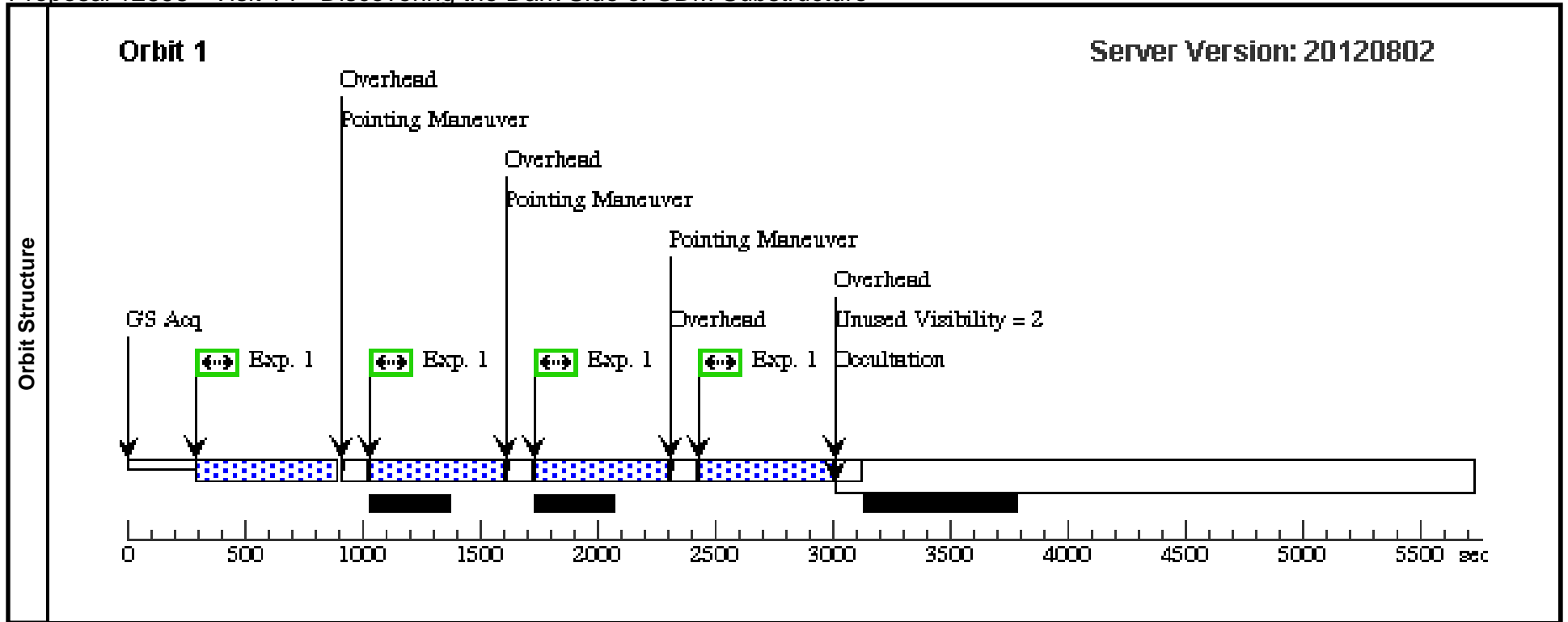
Visit	Proposal 12898, Visit 13, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 11									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of 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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	SDSS-J091205.31+002901.1	RA: 09 12 5.3100 (138.0221250d) Dec: +00 29 1.20 (.48367d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.4	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) SDSS-J091205.31+002901.1	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 13 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 14 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:42 GMT 2012

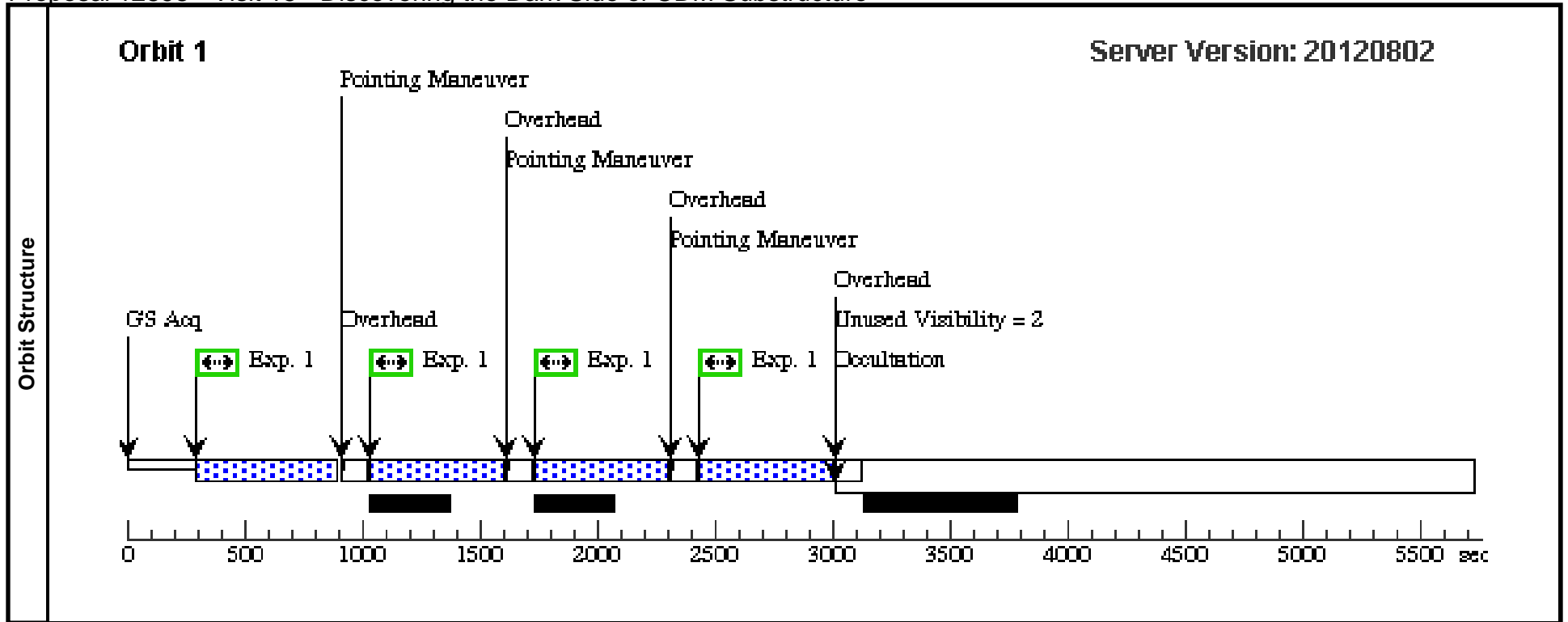
Visit	Proposal 12898, Visit 14, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 11									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of 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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	SDSS-J091205.31+002901.1	RA: 09 12 5.3100 (138.0221250d) Dec: +00 29 1.20 (.48367d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.4	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) SDSS-J091205.31+002901.1	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 14 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 15 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:43 GMT 2012

Visit	Proposal 12898, Visit 15, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 11									
	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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	SDSS-J091205.31+002901.1	RA: 09 12 5.3100 (138.0221250d) Dec: +00 29 1.20 (.48367d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.4	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) SDSS-J091205.31+002901.1	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 15 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]

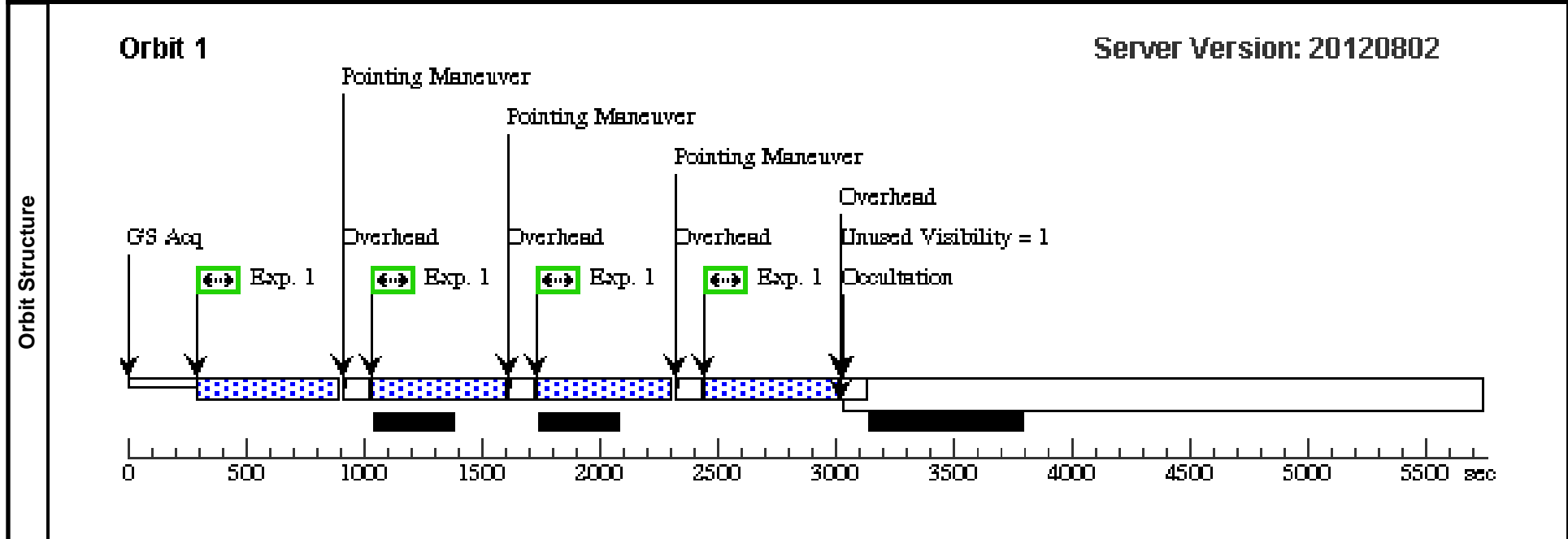


Visit	Proposal 12898, Visit 16, implementation			
	Diagnostic Status: No Diagnostics			
	Scientific Instruments: WFC3/UVIS			
	Special Requirements: SCHED 100%			

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	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	SDSS-J095629.78+510006.6	RA: 09 56 29.7800 (149.1240833d) Dec: +51 00 6.60 (51.00183d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 20.8	Reference Frame: ICRS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(5) SDSS-J095629.78+510006.6	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 16 (1)	200 Secs [=>573.0 Secs (Pattern 1)] [=>573.0 Secs (Pattern 2)] [=>573.0 Secs (Pattern 3)] [=>573.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 17 - Discovering the Dark Side of CDM Substructure

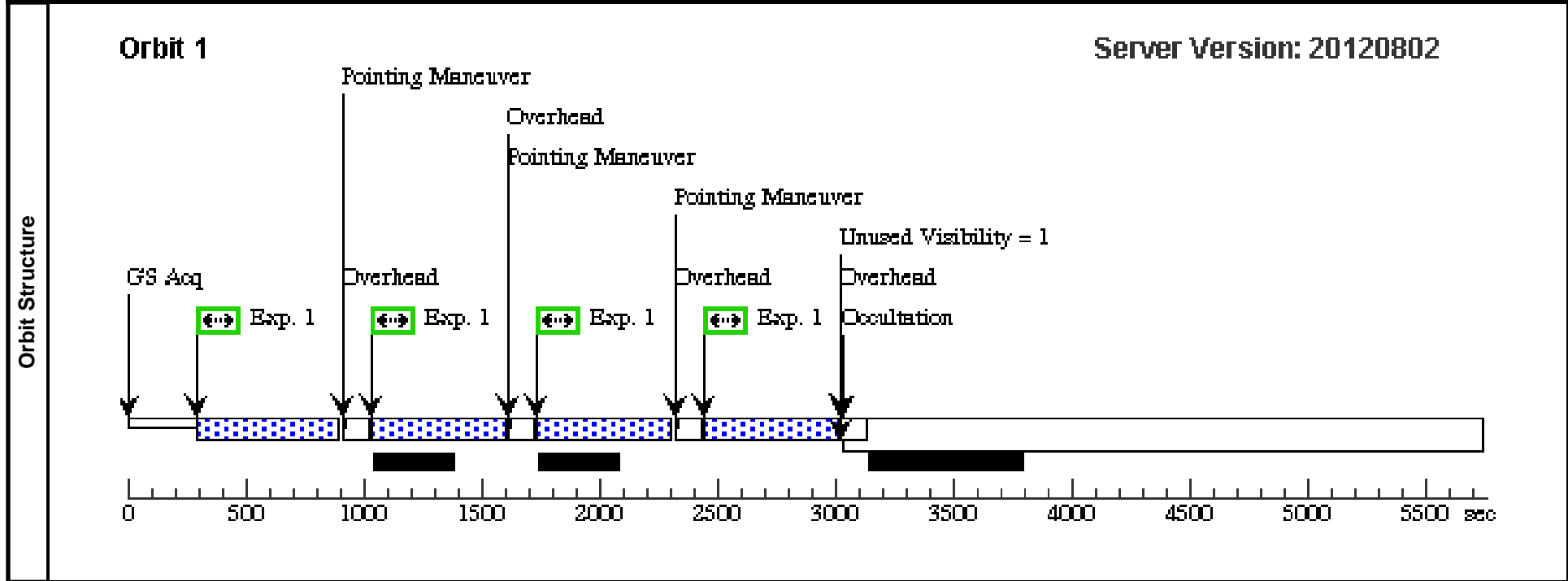
Thu Nov 01 01:13:44 GMT 2012

Visit	Proposal 12898, Visit 17, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 16		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	SDSS-J095629.78+510006.6	RA: 09 56 29.7800 (149.1240833d) Dec: +51 00 6.60 (51.00183d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 20.8	Reference Frame: ICRS

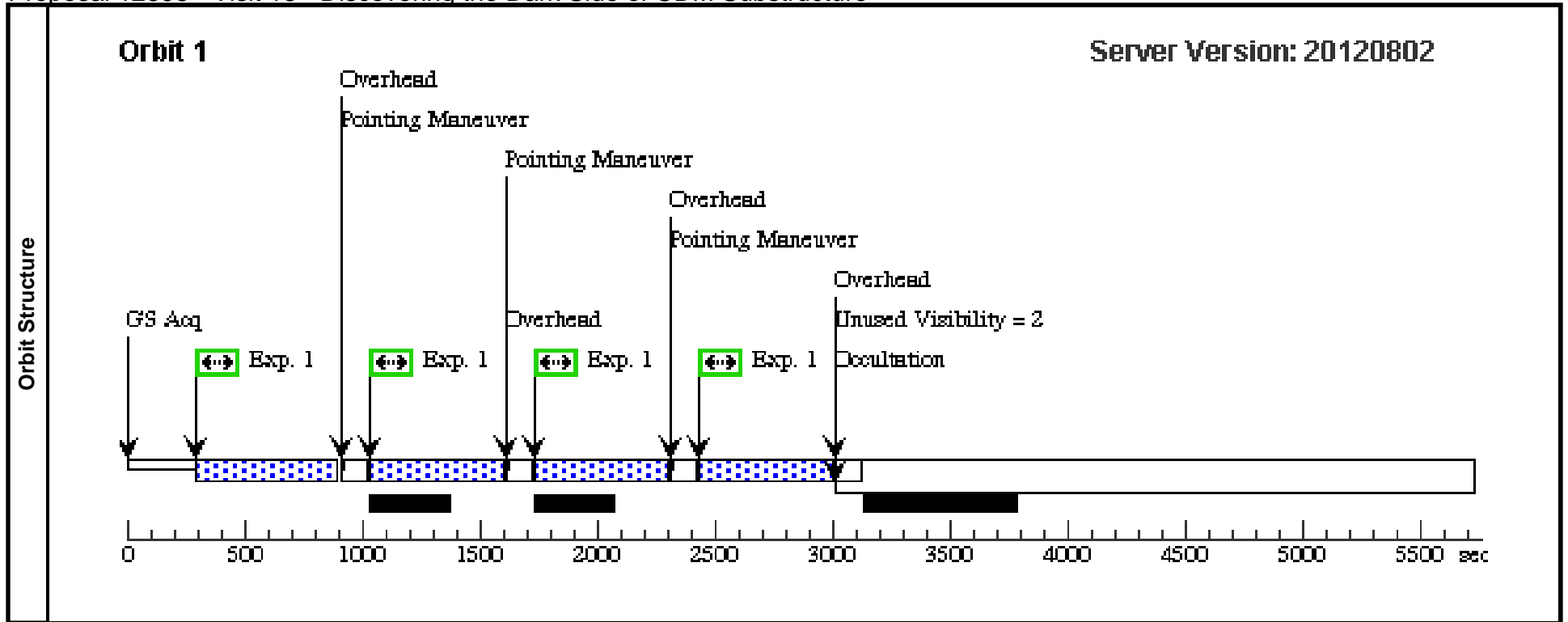
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(5) SDSS-J095629.78+510006.6	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 17 (1)	200 Secs [=>573.0 Secs (Pattern 1)] [=>573.0 Secs (Pattern 2)] [=>573.0 Secs (Pattern 3)] [=>573.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 18 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:45 GMT 2012

Visit	Proposal 12898, Visit 18, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%									
	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)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	SDSS-J095944.07+041017.0	RA: 09 59 44.0700 (149.9336250d) Dec: +04 10 17.00 (4.17139d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 20.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(6) SDSS-J095944.07+041017.0	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 18 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]

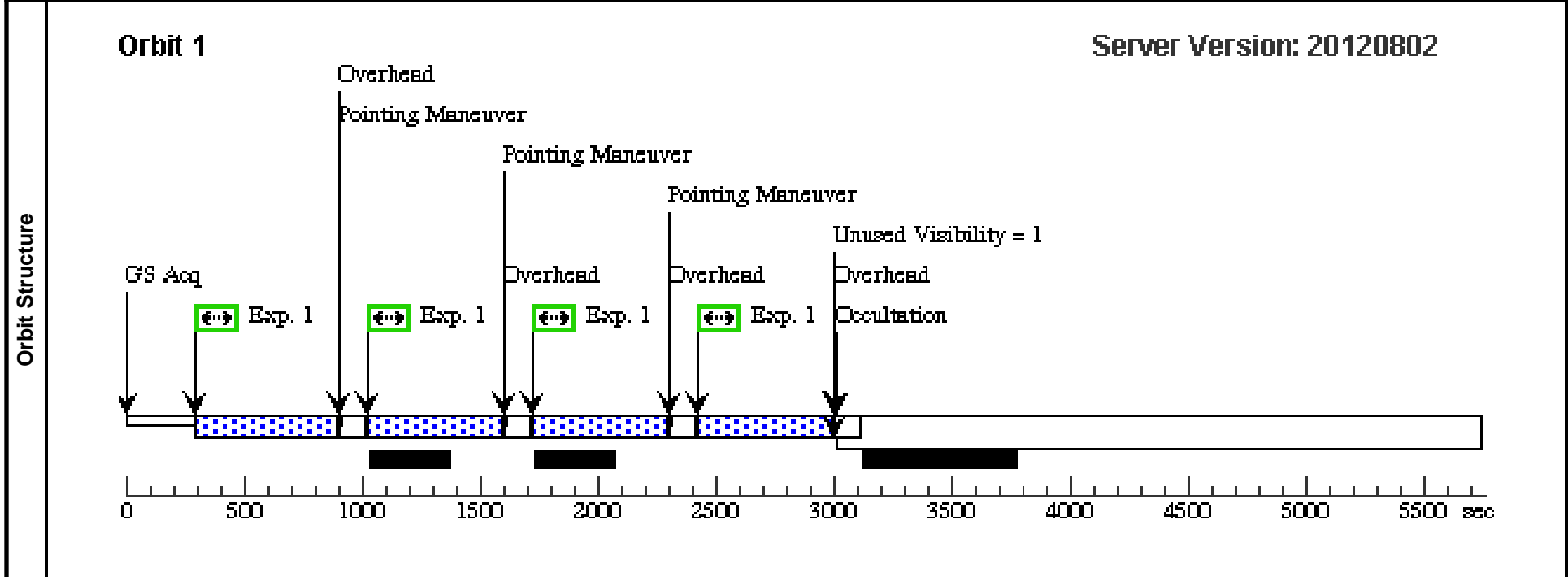


Visit	Proposal 12898, Visit 19, implementation			Thu Nov 01 01:13:46 GMT 2012
	Diagnostic Status: No Diagnostics			
	Scientific Instruments: WFC3/UVIS			
	Special Requirements: SCHED 100%			

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	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(7)	SDSS-J143004.10+410557.1	RA: 14 30 4.1000 (217.5170833d) Dec: +41 05 57.10 (41.09919d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 20.8	Reference Frame: ICRS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(7) SDSS-J143004.10+410557.1	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 19 (1)	200 Secs [==>568.0 Secs (Pattern 1)] [==>568.0 Secs (Pattern 2)] [==>568.0 Secs (Pattern 3)] [==>568.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 20 - Discovering the Dark Side of CDM Substructure

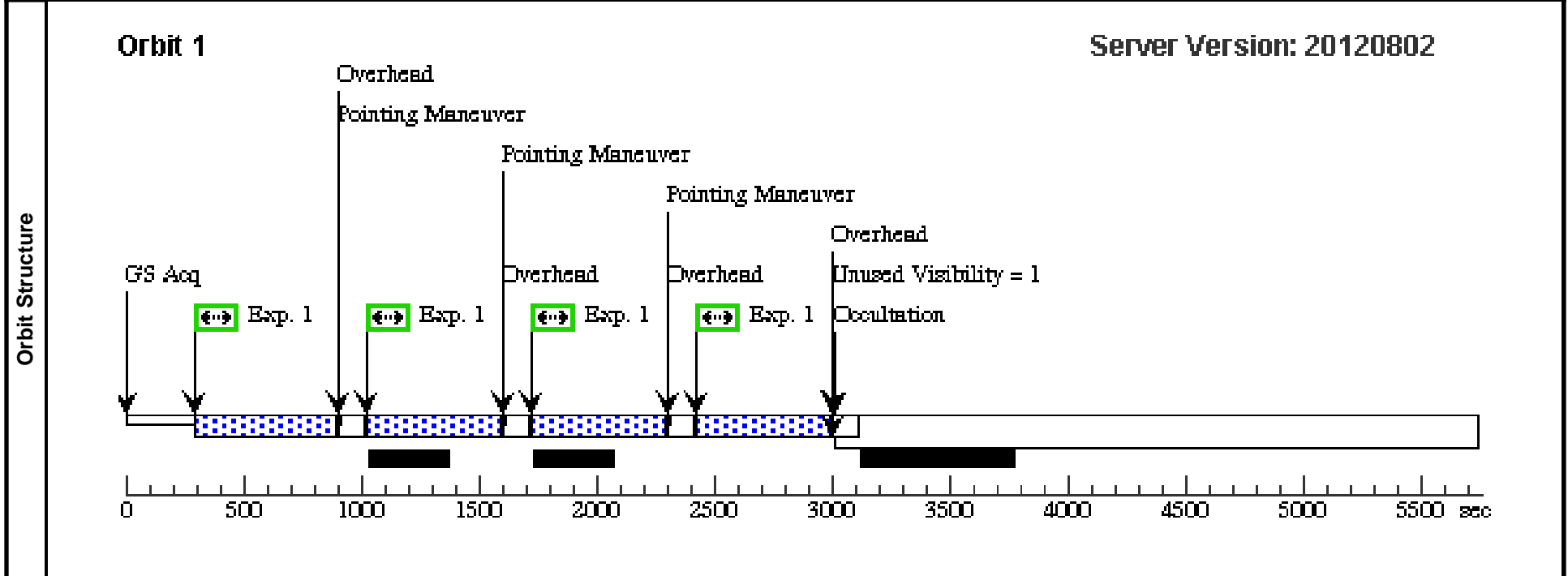
Thu Nov 01 01:13:47 GMT 2012

Visit	Proposal 12898, Visit 20, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 19		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(7)	SDSS-J143004.10+410557.1	RA: 14 30 4.1000 (217.5170833d) Dec: +41 05 57.10 (41.09919d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 20.8	Reference Frame: ICRS

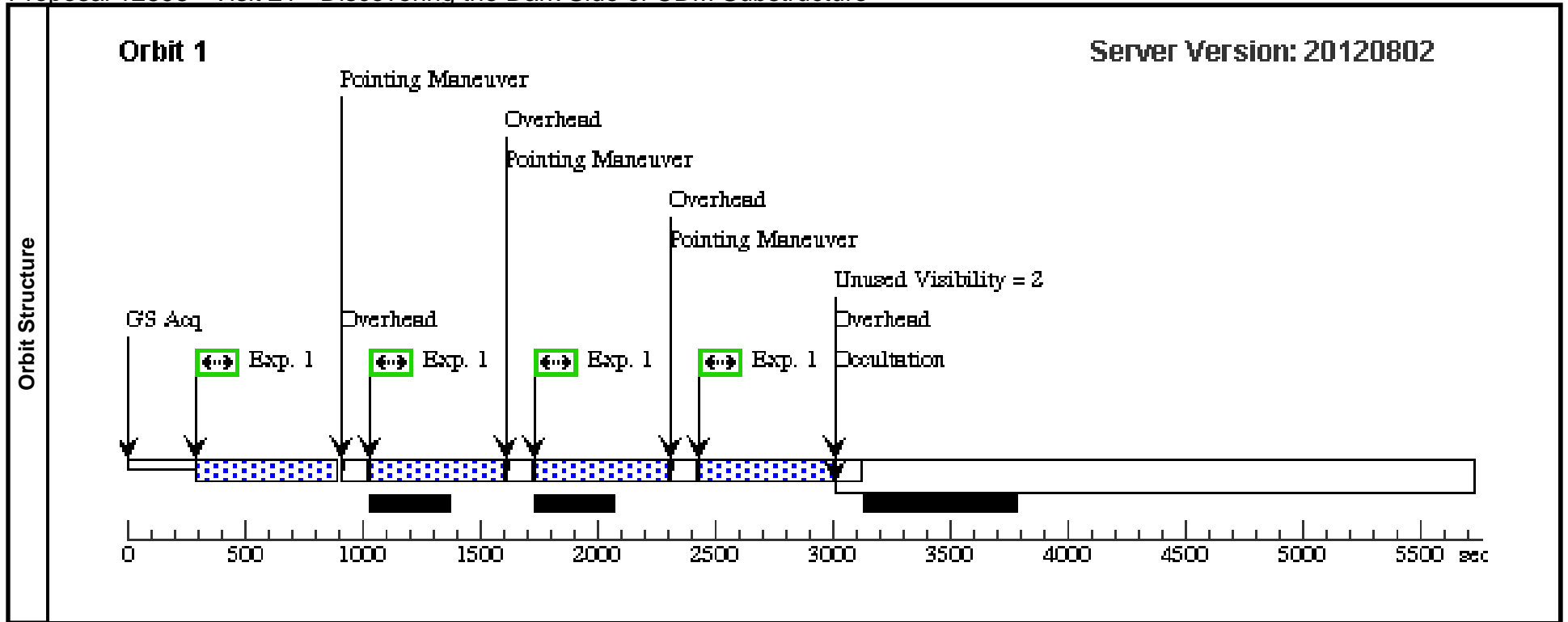
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(7) SDSS-J143004.10+410557.1	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 20 (1)	200 Secs [==>568.0 Secs (Pattern 1)] [==>568.0 Secs (Pattern 2)] [==>568.0 Secs (Pattern 3)] [==>568.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 21 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:48 GMT 2012

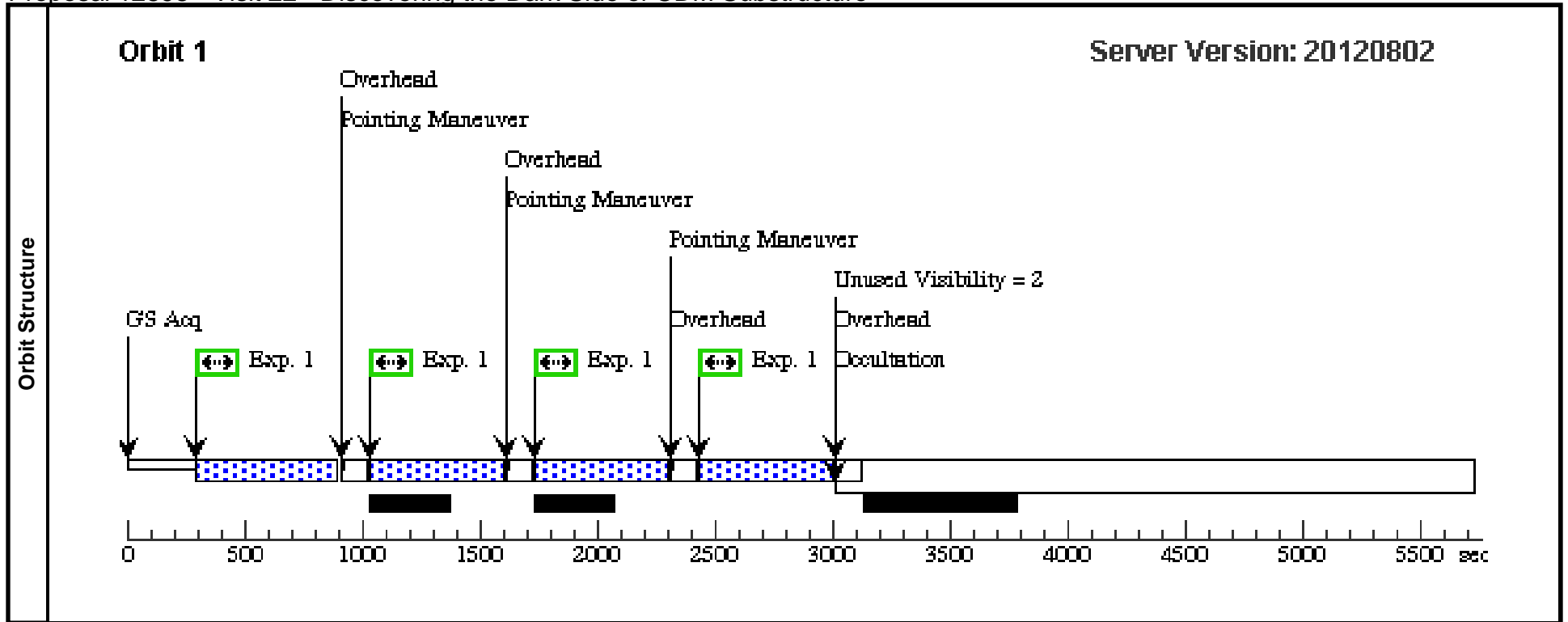
Visit	Proposal 12898, Visit 21, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	SDSS-J162746.44-005357.5	RA: 16 27 46.4500 (246.9435417d) Dec: -00 53 57.60 (-.89933d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.6	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(8) SDSS-J162746.4-005357.5	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 21 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 22 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:49 GMT 2012

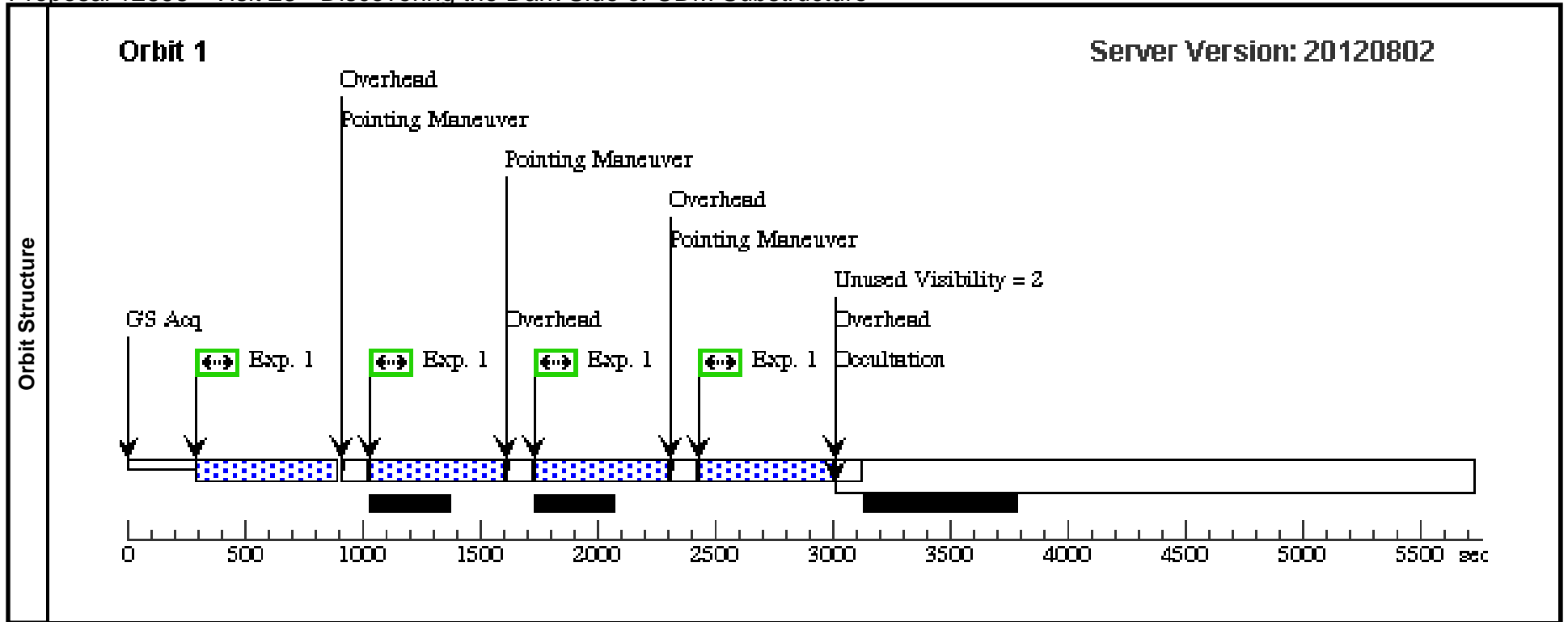
Visit	Proposal 12898, Visit 22, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 21									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of 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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	SDSS-J162746.44-005357.5	RA: 16 27 46.4500 (246.9435417d) Dec: -00 53 57.60 (-.89933d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.6	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(8) SDSS-J162746.4-005357.5	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 22 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 23 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:50 GMT 2012

Visit	Proposal 12898, Visit 23, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 21									
	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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	SDSS-J162746.44-005357.5	RA: 16 27 46.4500 (246.9435417d) Dec: -00 53 57.60 (-.89933d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.6	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(8) SDSS-J162746.4-005357.5	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 23 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 24 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:50 GMT 2012

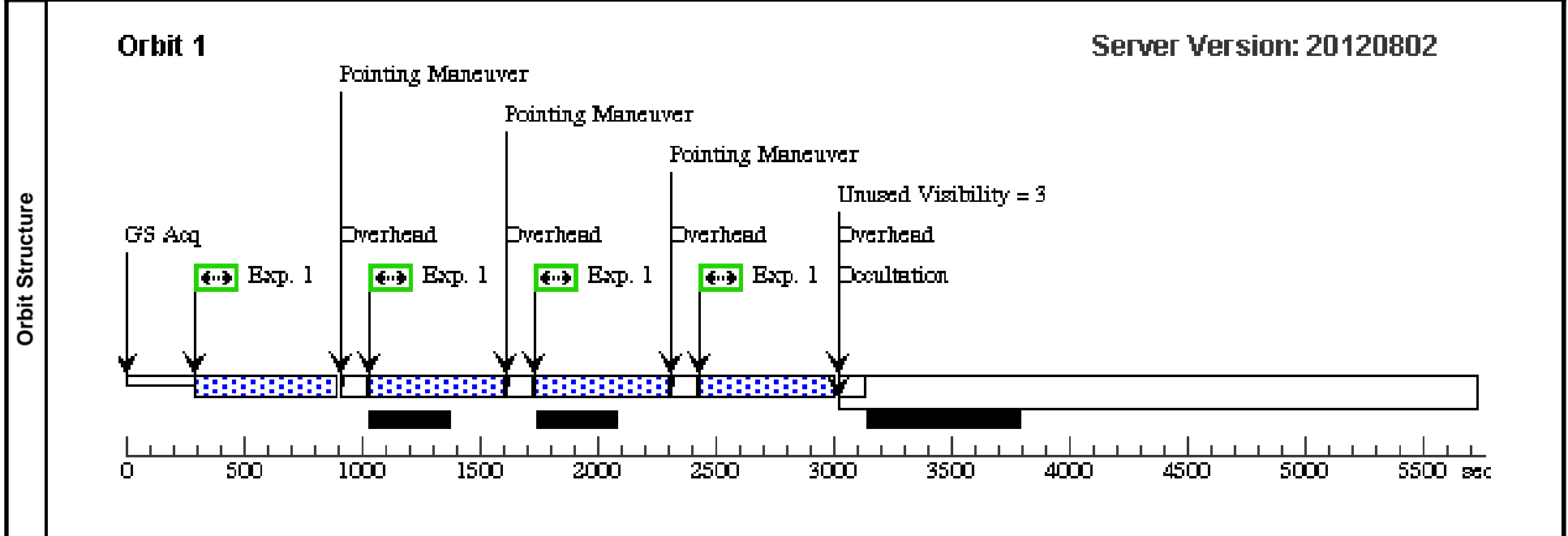
Visit	Proposal 12898, Visit 24, implementation			
	Diagnostic Status: No Diagnostics			
	Scientific Instruments: WFC3/UVIS			
	Special Requirements: SCHED 100%			

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	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(9)	SDSS-J163028.16+452036.2	RA: 16 30 28.1500 (247.6172917d) Dec: +45 20 36.30 (45.34342d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.3	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

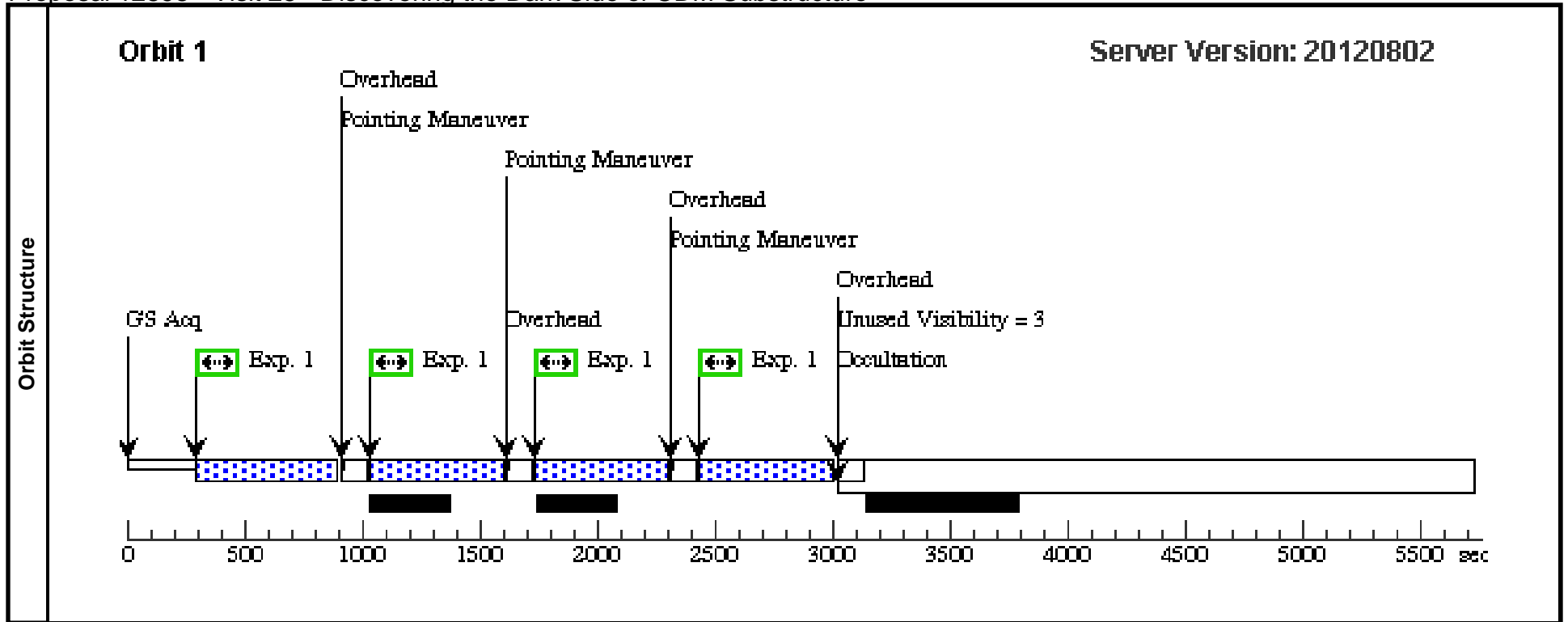
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) SDSS-J163028.16+452036.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 24 (1)	200 Secs [=>571.0 Secs (Pattern 1)] [=>571.0 Secs (Pattern 2)] [=>571.0 Secs (Pattern 3)] [=>571.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 25 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:51 GMT 2012

Visit	Proposal 12898, Visit 25, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 24									
	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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	SDSS-J163028.16+452036.2	RA: 16 30 28.1500 (247.6172917d) Dec: +45 20 36.30 (45.34342d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.3	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) SDSS-J163028.16+452036.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 25 (1)	200 Secs [==>571.0 Secs (Pattern 1)] [==>571.0 Secs (Pattern 2)] [==>571.0 Secs (Pattern 3)] [==>571.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 26 - Discovering the Dark Side of CDM Substructure

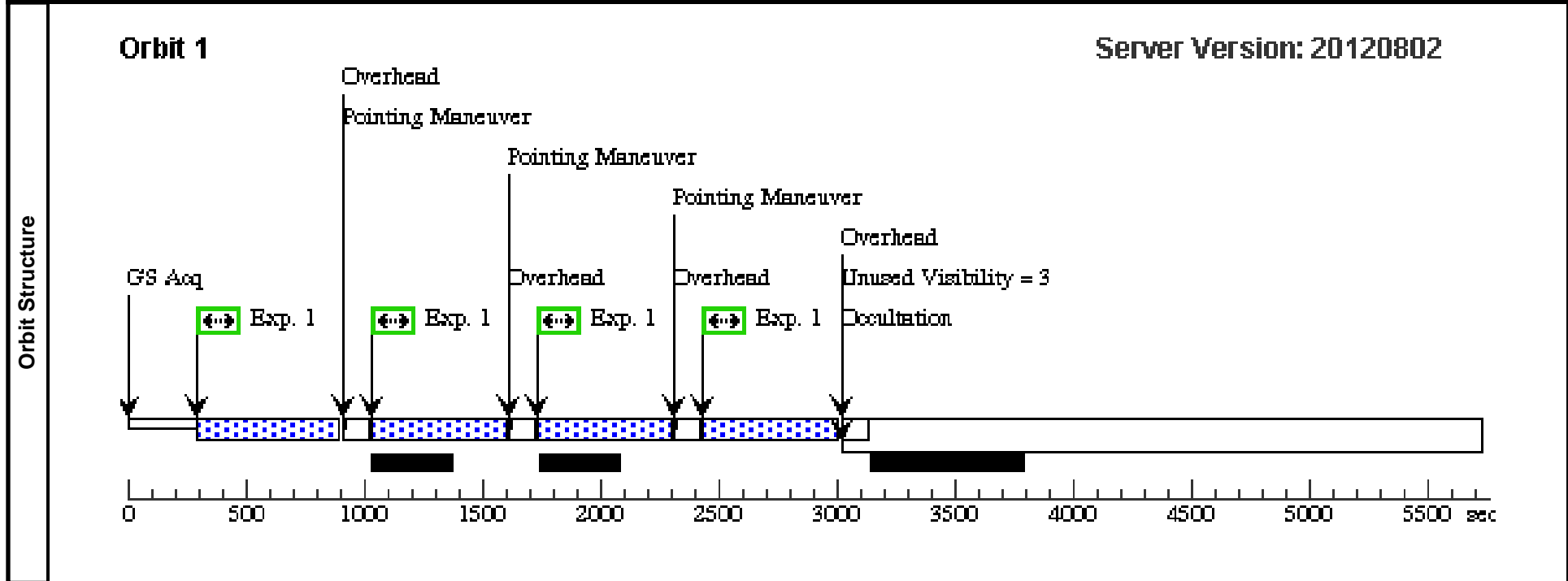
Thu Nov 01 01:13:52 GMT 2012

Visit	Proposal 12898, Visit 26, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 24		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(9)	SDSS-J163028.16+452036.2	RA: 16 30 28.1500 (247.6172917d) Dec: +45 20 36.30 (45.34342d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.3	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

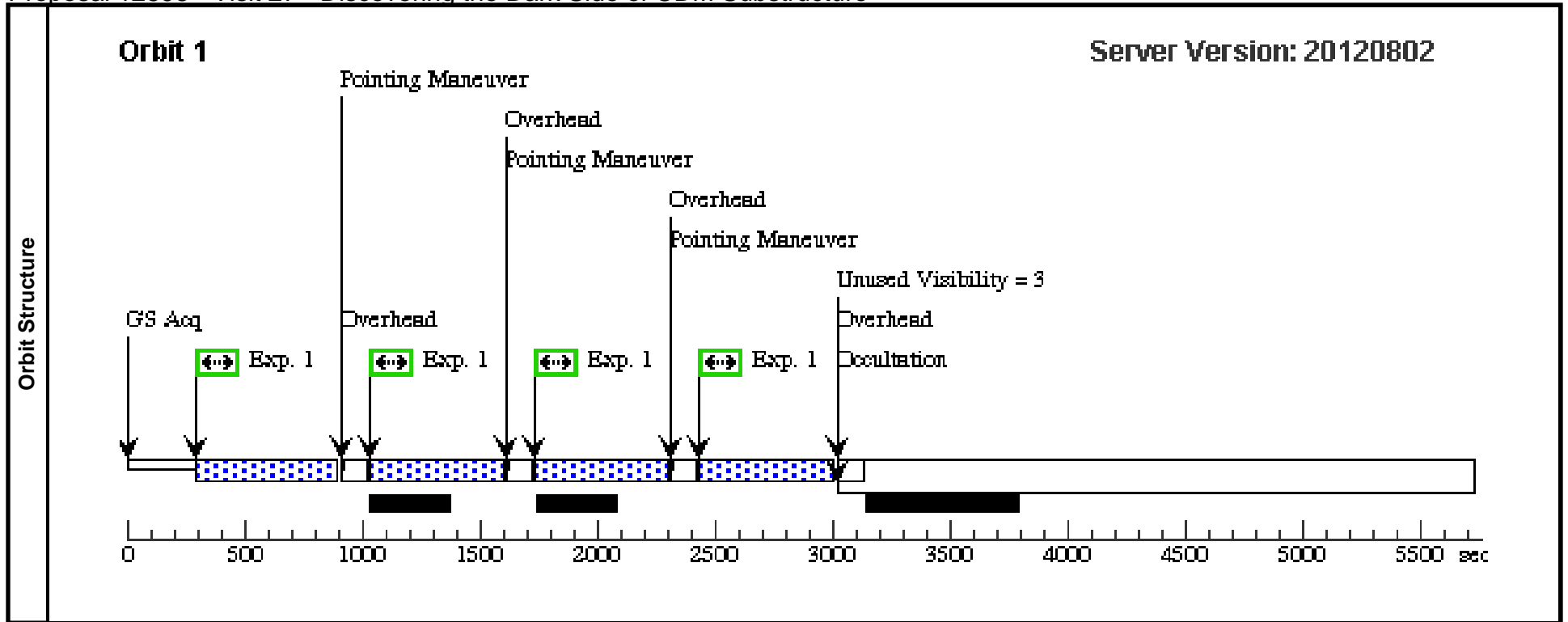
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) SDSS-J163028.16+452036.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 26 (1)	200 Secs [==>571.0 Secs (Pattern 1)] [==>571.0 Secs (Pattern 2)] [==>571.0 Secs (Pattern 3)] [==>571.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 27 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:53 GMT 2012

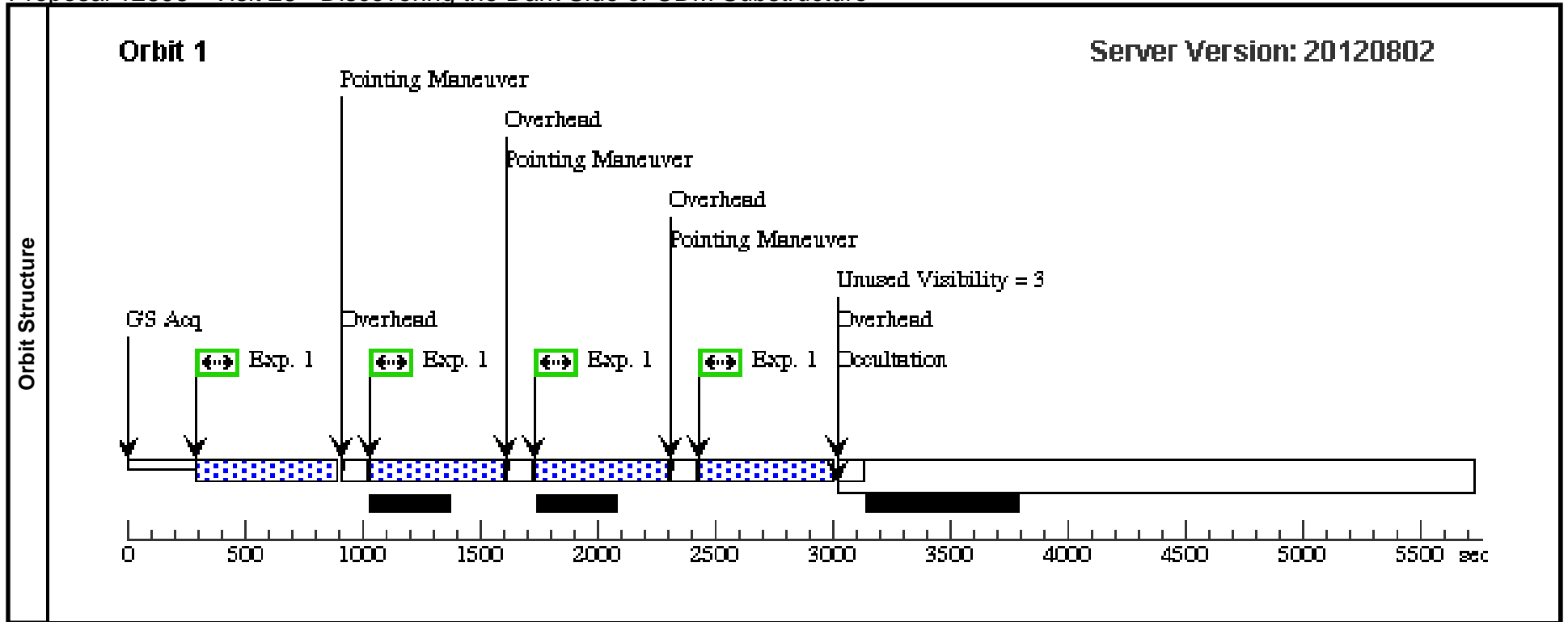
Visit	Proposal 12898, Visit 27, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 24									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of 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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	SDSS-J163028.16+452036.2	RA: 16 30 28.1500 (247.6172917d) Dec: +45 20 36.30 (45.34342d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.3	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) SDSS-J163028.16+452036.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 27 (1)	200 Secs [==>571.0 Secs (Pattern 1)] [==>571.0 Secs (Pattern 2)] [==>571.0 Secs (Pattern 3)] [==>571.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 28 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:54 GMT 2012

Visit	Proposal 12898, Visit 28, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; SAME ORIENT AS 24									
	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)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	SDSS-J163028.16+452036.2	RA: 16 30 28.1500 (247.6172917d) Dec: +45 20 36.30 (45.34342d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 22.3	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) SDSS-J163028.16+452036.2	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 28 (1)	200 Secs [==>571.0 Secs (Pattern 1)] [==>571.0 Secs (Pattern 2)] [==>571.0 Secs (Pattern 3)] [==>571.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 29 - Discovering the Dark Side of CDM Substructure

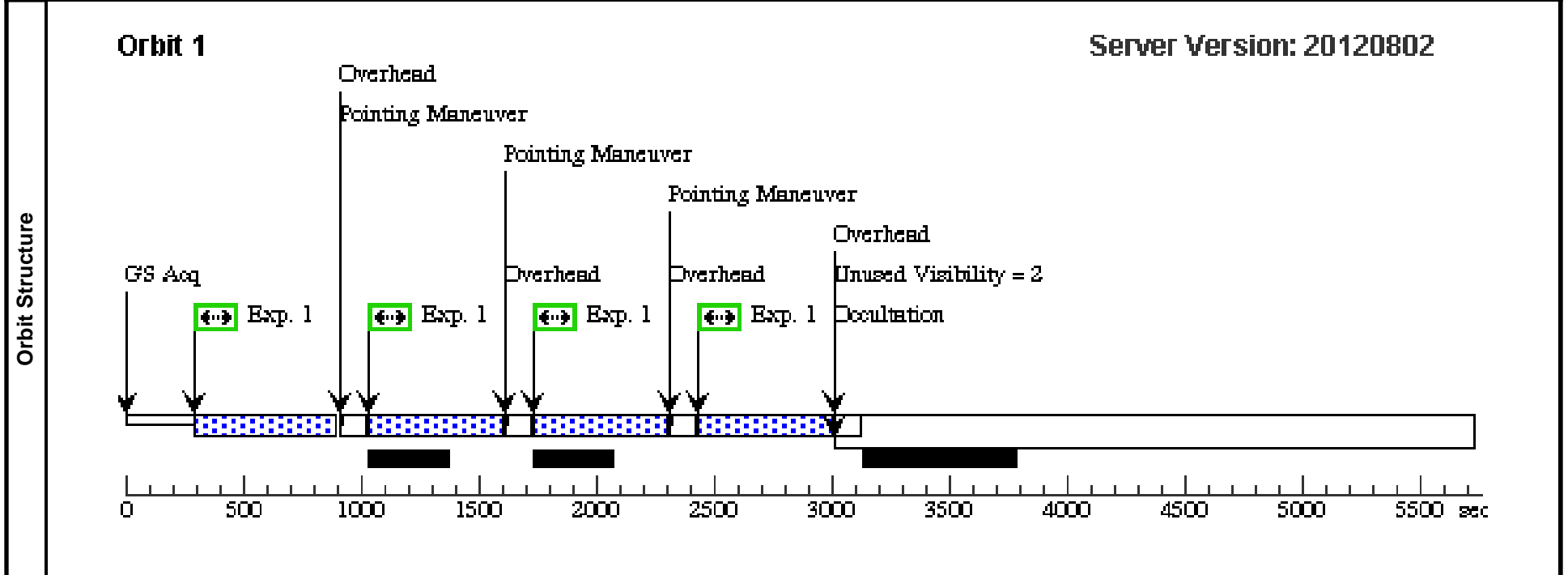
Thu Nov 01 01:13:55 GMT 2012

Visit	Proposal 12898, Visit 29, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(10)	SDSS-J234111.57+000018.6	RA: 23 41 11.5700 (355.2982083d) Dec: +00 00 18.70 (.00519d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.4	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(10) SDSS-J234111.57+000018.6	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 29 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]



Proposal 12898 - Visit 30 - Discovering the Dark Side of CDM Substructure

Thu Nov 01 01:13:56 GMT 2012

Visit	Proposal 12898, Visit 30, implementation		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SCHED 100%; SAME ORIENT AS 29		

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)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(10)	SDSS-J234111.57+000018.6	RA: 23 41 11.5700 (355.2982083d) Dec: +00 00 18.70 (.00519d) Equinox: J2000		V=(?) Source <1/sq.arcsec> = 21.4	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(10) SDSS-J234111.57+000018.6	WFC3/UVIS, ACCUM, UVIS1	F390W	FLASH=5		Pattern 1, Exps 1-1 in Visit 30 (1)	200 Secs [==>569.0 Secs (Pattern 1)] [==>569.0 Secs (Pattern 2)] [==>569.0 Secs (Pattern 3)] [==>569.0 Secs (Pattern 4)]	[1]

