



## 16427 - The role of photons from X-ray binaries at reionization

Cycle: 28, 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) SDSSJ092532.37+1403113.06	WFC3/UVIS	1	10-Dec-2020 17:00:20.0	yes
02	(2) SDSSJ144231.39-020952.03	WFC3/UVIS	1	10-Dec-2020 17:00:21.0	yes
03	(3) SDSSJ031023.9-083433	WFC3/UVIS	1	10-Dec-2020 17:00:22.0	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>
04	(4) SDSSJ014721.7-091646	WFC3/UVIS	1	10-Dec-2020 17:00:23.0	yes
05	(5) SDSSJ141126.32+122025.9	WFC3/UVIS	1	10-Dec-2020 17:00:24.0	yes
06	(6) SDSSJ231838.5-103019	WFC3/UVIS	1	10-Dec-2020 17:00:24.0	yes
07	(7) SDSSJ164235.5+422350	WFC3/UVIS	1	10-Dec-2020 17:00:25.0	yes
11	(11) SDSSJ164235.5+422350-COPY	WFC3/UVIS	1	10-Dec-2020 17:00:26.0	yes
08	(8) SDSSJ011729.1-084404	WFC3/UVIS	1	10-Dec-2020 17:00:27.0	yes
09	(9) SDSS080739.35+311218.2	WFC3/UVIS	1	10-Dec-2020 17:00:28.0	yes
10	(10) SDSS235604.67-085423.4	WFC3/UVIS	1	10-Dec-2020 17:00:28.0	yes

11 Total Orbits Used

## **ABSTRACT**

The origin of the photons that initiated and maintained cosmic reionization remains an outstanding question in cosmology. Theoretical modelling suggests that low metallicity populations create relatively far larger numbers of X-ray binaries (XRBs). Penetrating X-ray radiation from such XRBs may play an important role in reionization due to a higher escape fraction for X-rays than UV, and longer XRB lifetimes than massive stars. Here we propose observations of galaxies which represent the best local analogs to the galaxies in the era of reionization. From these deep observations we will directly test whether X-ray photon production in young, compact, low metallicity, and intensely star forming galaxies can provide the necessary photon budget to reionize the Universe.

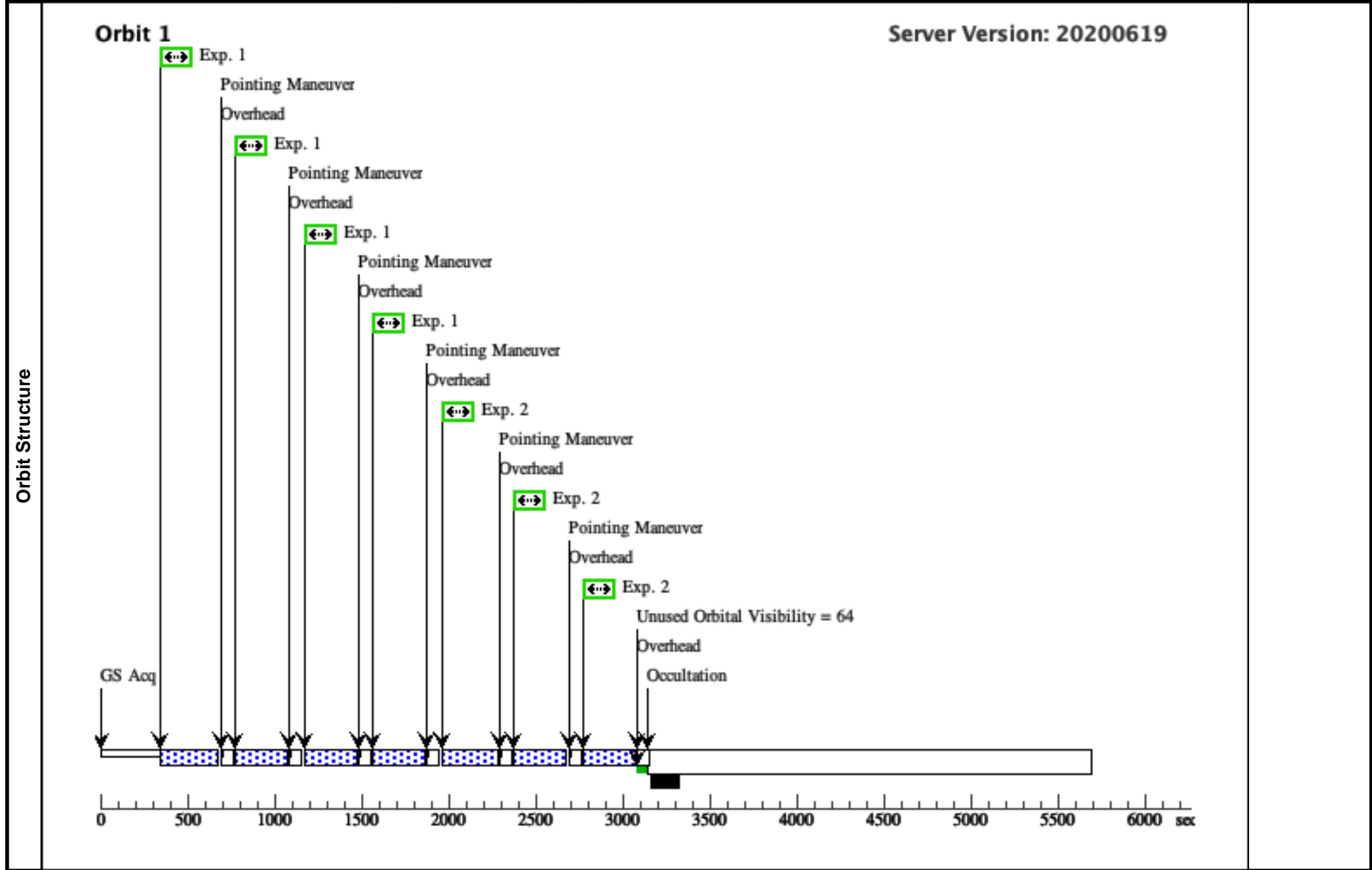
## **OBSERVING DESCRIPTION**

We plan to obtain UV and red optical observations of a sample of Lyman Break Analogs (LBAs) which have been chosen to match the properties of the  $z \sim 5$  Lyman break galaxies. The aim of these observations is to determine UV luminosities, sizes and morphologies of the galaxies in question. To this end we will obtain single orbit observations in F390W and F775W (both blueward and redward of the Balmer break). We will use the narrow 1K aperture in order to remove the issue of buffer dumps. For each observation we will obtain 4x300s in F390W and 3x300s in F775W. The multiple dither positions will provide CR rejection and a degree of PSF recovery via drizzle.

Proposal 16427 - Visit 01 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:29 GMT 2020

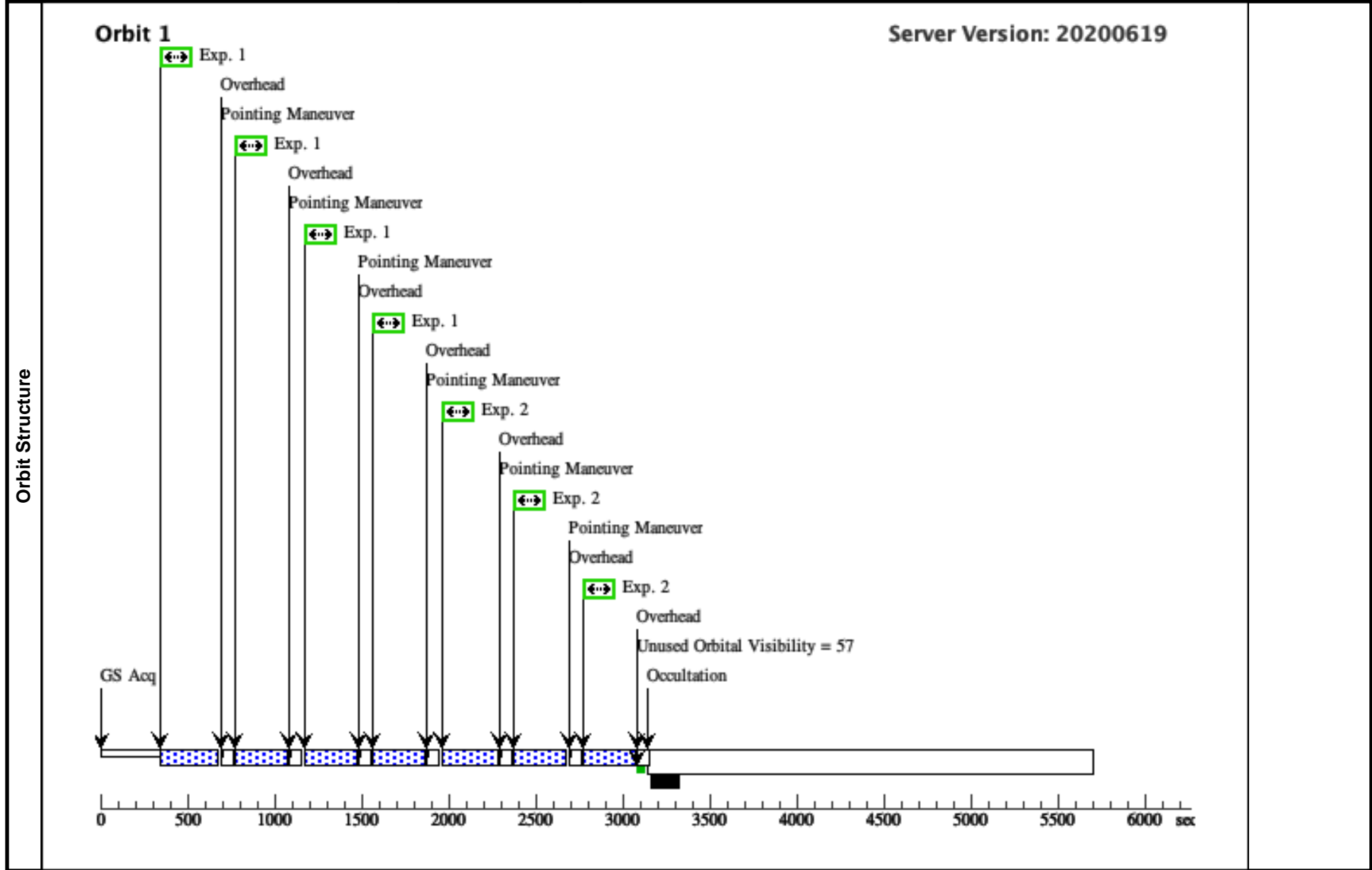
<b>Visit</b>	<b>Proposal 16427, Visit 01, scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 01)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 01)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(1)	SDSSJ092532.37+1403113.06	RA: 09 25 32.3700 (141.3848750d) Dec: +14 03 13.06 (14.05363d) Equinox: J2000		V=19.55+/-0.1	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[STAR FORMING REGION]										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(1) SDSSJ092532.37+1403113.06	(1) SDSSJ092532.37+1403113.06	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 01 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(1) SDSSJ092532.37+1403113.06	(1) SDSSJ092532.37+1403113.06	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 01 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 16427 - Visit 02 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:29 GMT 2020

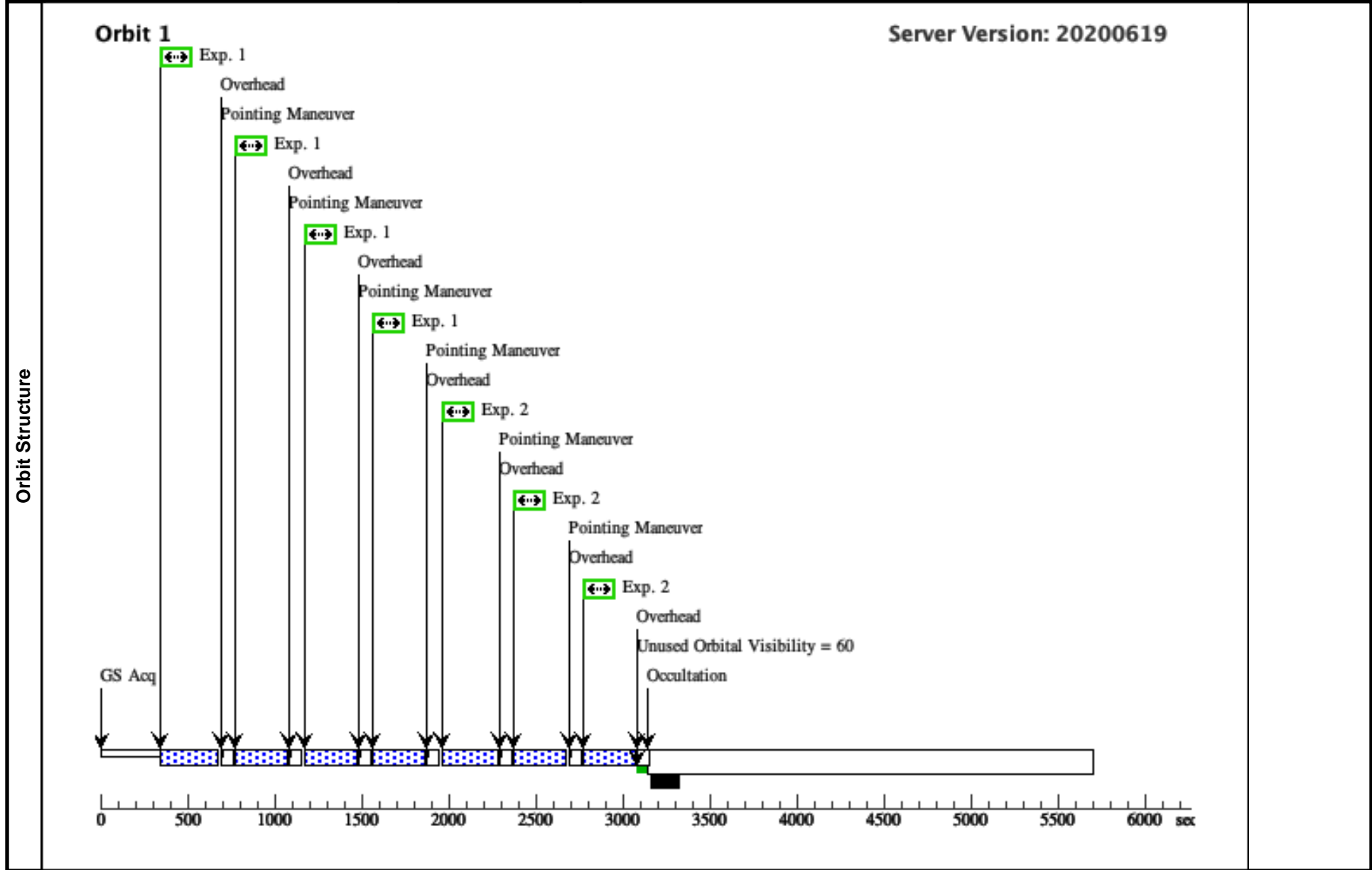
<b>Visit</b>	<b>Proposal 16427, Visit 02, scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 02)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 02)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)					
<b>Patterns</b>	(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
<b>Fixed Targets</b>	(2)	SDSSJ144231.39-020952.03	RA: 14 42 31.3900 (220.6307917d) Dec: -02 09 52.03 (-2.16445d) Equinox: J2000		V=19.48+/-0.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=STAR FORMING REGION									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(2) SDSSJ144231.39-020952.03	(2) SDSSJ144231.39-020952.03	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 02 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(2) SDSSJ144231.39-020952.03	(2) SDSSJ144231.39-020952.03	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 02 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 16427 - Visit 03 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:29 GMT 2020

<b>Visit</b>	<b>Proposal 16427, Visit 03, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 03)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 03)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(3)	SDSSJ031023.9-083433	RA: 03 10 23.9000 (47.5995833d) Dec: -08 34 33.00 (-8.57583d) Equinox: J2000		V=18.98+/-0.1	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[STAR FORMING REGION]										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(3) SDSSJ031023.9-083433	(3) SDSSJ031023.9-083433	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 03 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(3) SDSSJ031023.9-083433	(3) SDSSJ031023.9-083433	(3) SDSSJ031023.9-083433	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 03 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]

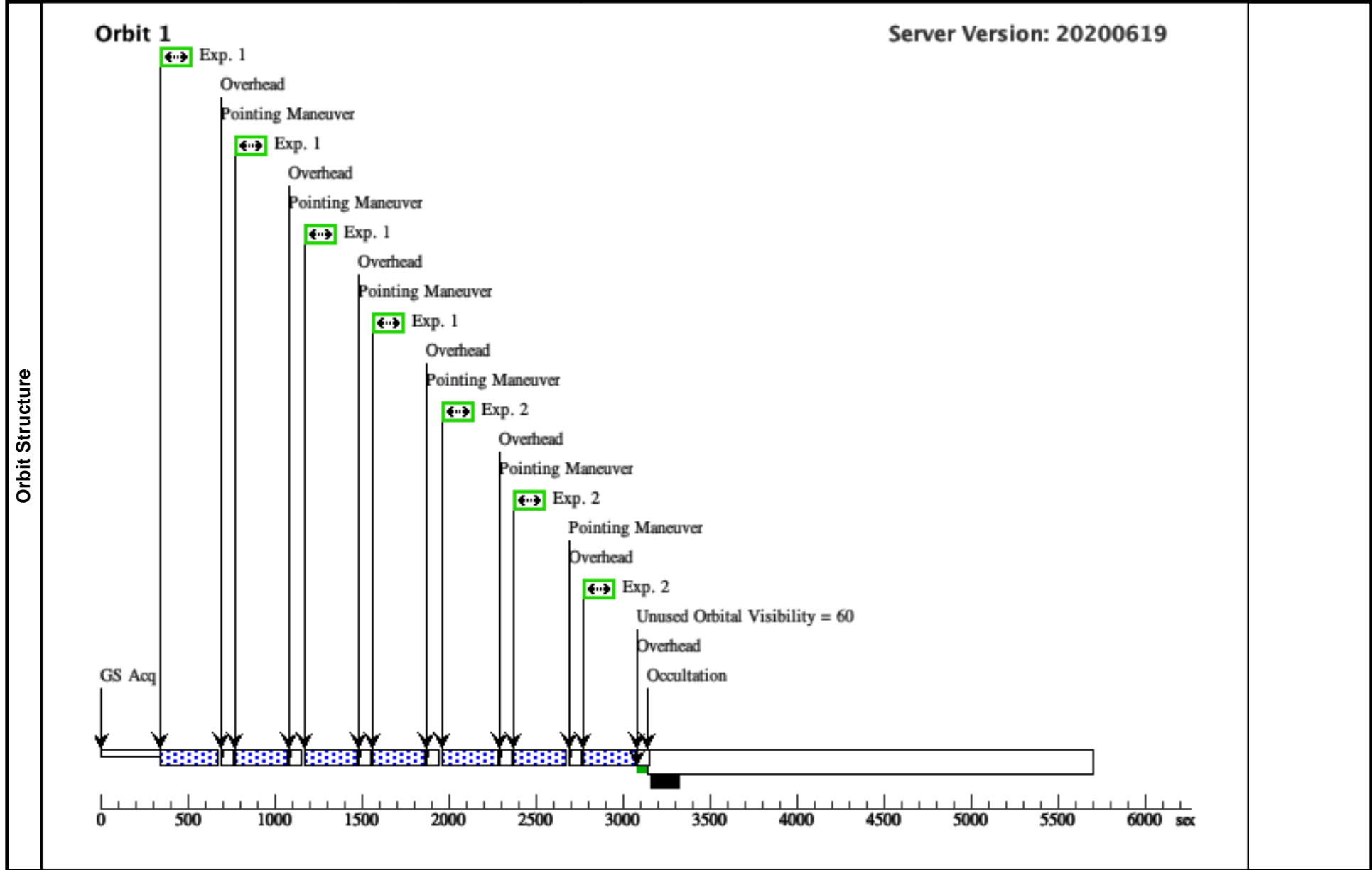




Proposal 16427 - Visit 04 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:29 GMT 2020

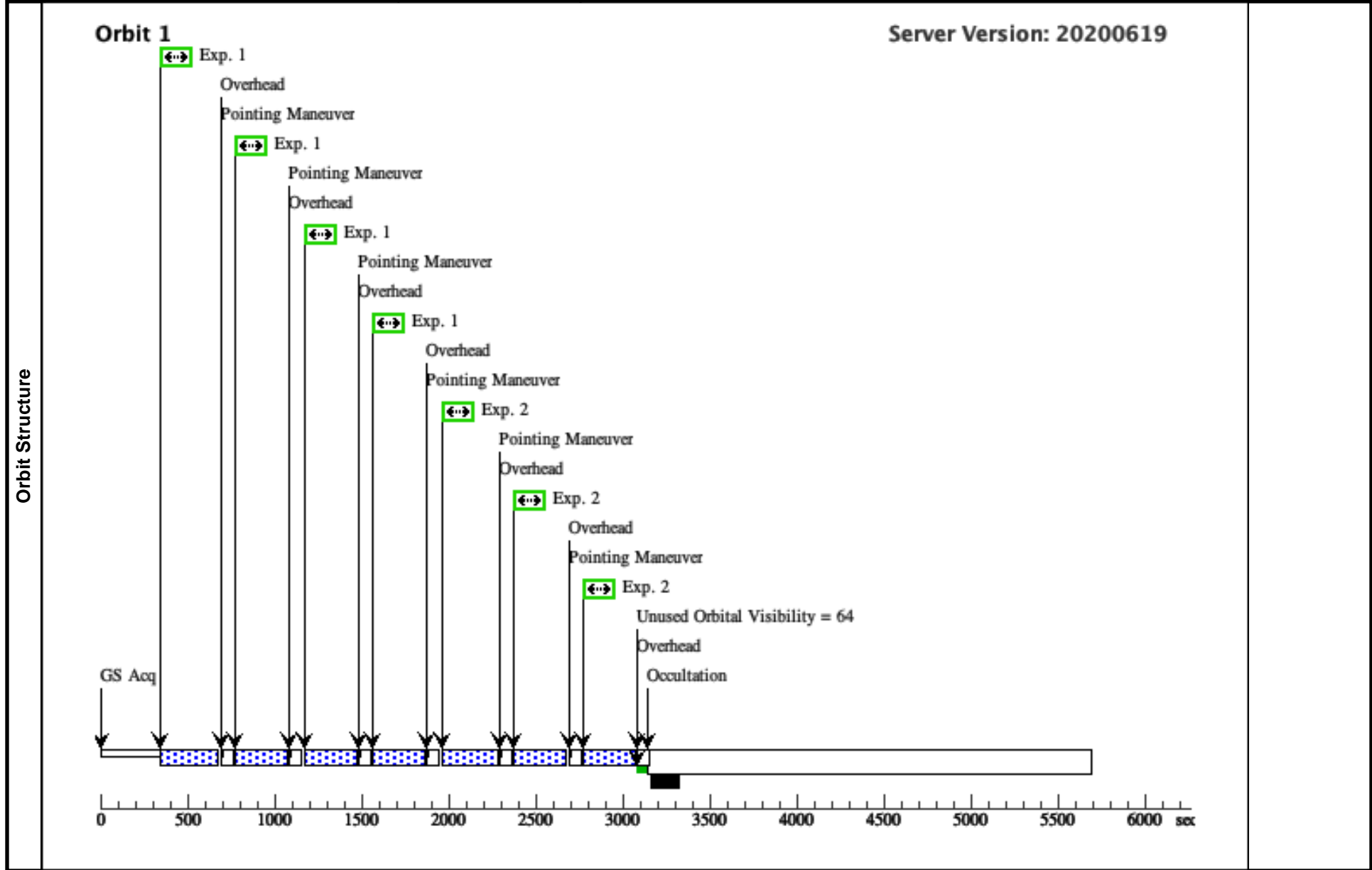
<b>Visit</b>	<b>Proposal 16427, Visit 04, scheduled</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 04)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 04)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)					
<b>Patterns</b>	(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
<b>Fixed Targets</b>	(4)	SDSSJ014721.7-091646	RA: 01 47 21.7000 (26.8404167d) Dec: -09 16 46.00 (-9.27944d) Equinox: J2000		V=19.10+/-0.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[STAR FORMING REGION]									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(4) SDSSJ014721.7-091646	(4) SDSSJ014721.7-091646	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 04 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(4) SDSSJ014721.7-091646	(4) SDSSJ014721.7-091646	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 04 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 16427 - Visit 05 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:29 GMT 2020

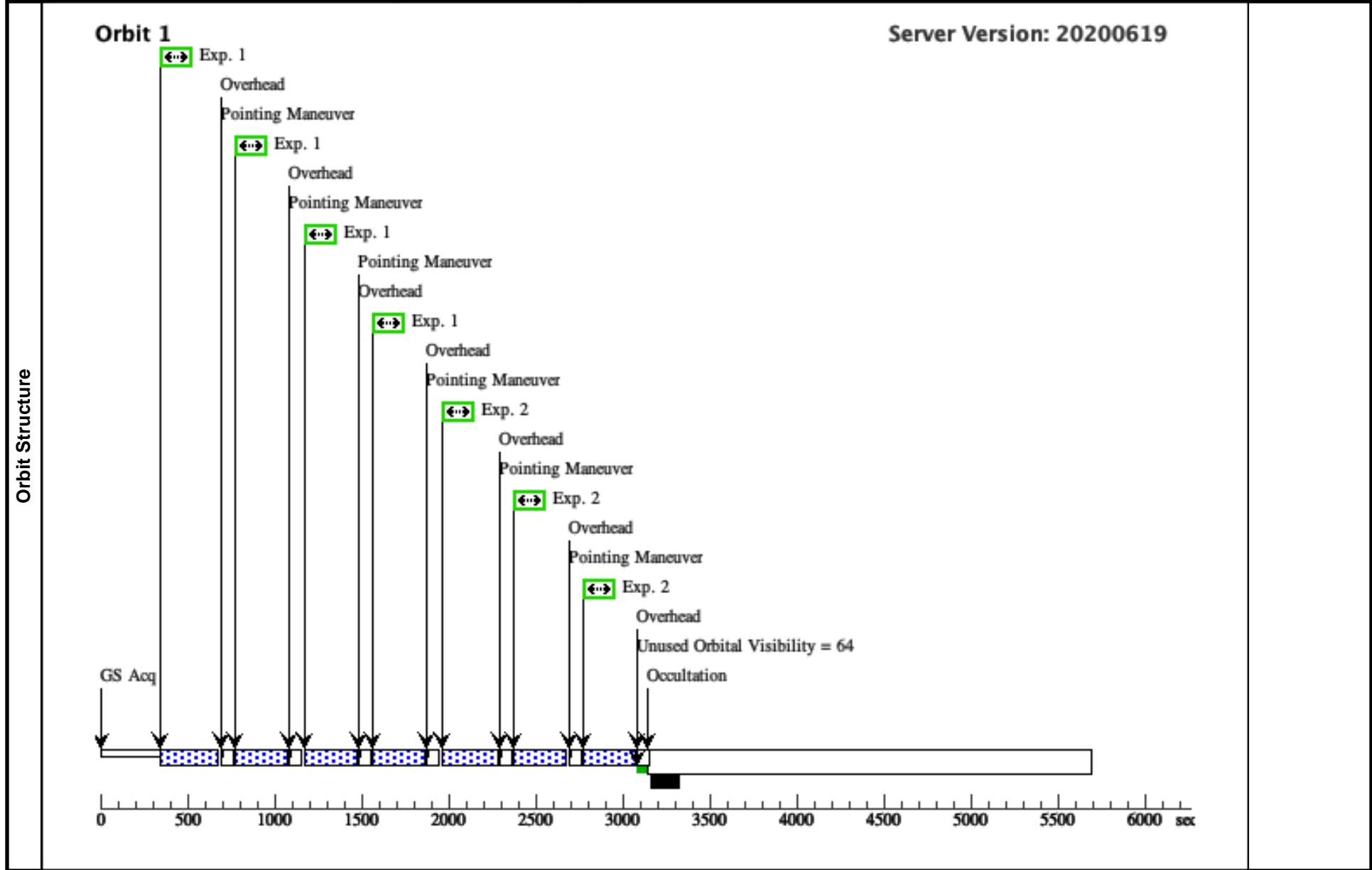
<b>Visit</b>	<b>Proposal 16427, Visit 05, scheduled</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 05)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 05)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)					
<b>Patterns</b>	(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
<b>Fixed Targets</b>	(5)	SDSSJ141126.32+122025.9	RA: 14 11 26.3200 (212.8596667d) Dec: +12 20 25.90 (12.34053d) Equinox: J2000		V=18.04+/-0.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[STAR FORMING REGION]									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(5) SDSSJ141126.32+122025.9	(5) SDSSJ141126.32+122025.9	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 05 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(5) SDSSJ141126.32+122025.9	(5) SDSSJ141126.32+122025.9	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15.0		Pattern 2, Exps 2-2 in Visit 05 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 16427 - Visit 06 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:29 GMT 2020

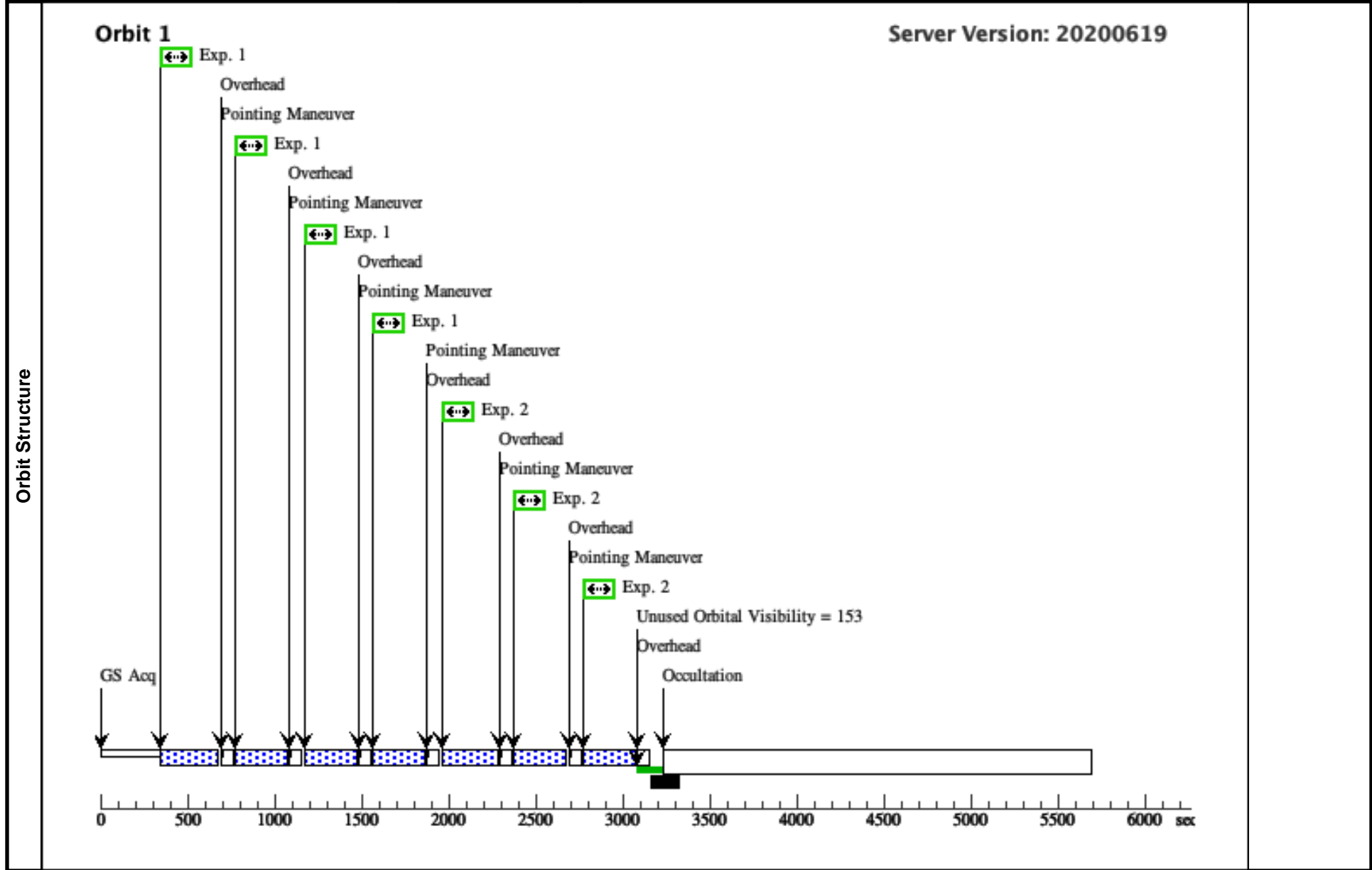
<b>Visit</b>	<b>Proposal 16427, Visit 06, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 06)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 06)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)					
<b>Patterns</b>	(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
<b>Fixed Targets</b>	(6)	SDSSJ231838.5-103019	RA: 23 18 38.5000 (349.6604167d) Dec: -10 30 19.00 (-10.50528d) Equinox: J2000		V=18.97+/-0.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[STAR FORMING REGION]									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(6) SDSSJ231838.5-103019	(6) SDSSJ231838.5-103019	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 06 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(6) SDSSJ231838.5-103019	(6) SDSSJ231838.5-103019	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 06 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 16427 - Visit 07 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:29 GMT 2020

<b>Visit</b>	<b>Proposal 16427, Visit 07, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 07)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 07)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)					
<b>Patterns</b>	(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
<b>Fixed Targets</b>	(7)	SDSSJ164235.5+422350	RA: 16 42 35.5000 (250.6479167d) Dec: +42 23 50.00 (42.39722d) Equinox: J2000		V=17.95+/-0.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=STAR FORMING REGION									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(7) SDSSJ164235.5+422350	(7) SDSSJ164235.5+422350	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 07 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(7) SDSSJ164235.5+422350	(7) SDSSJ164235.5+422350	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 07 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	

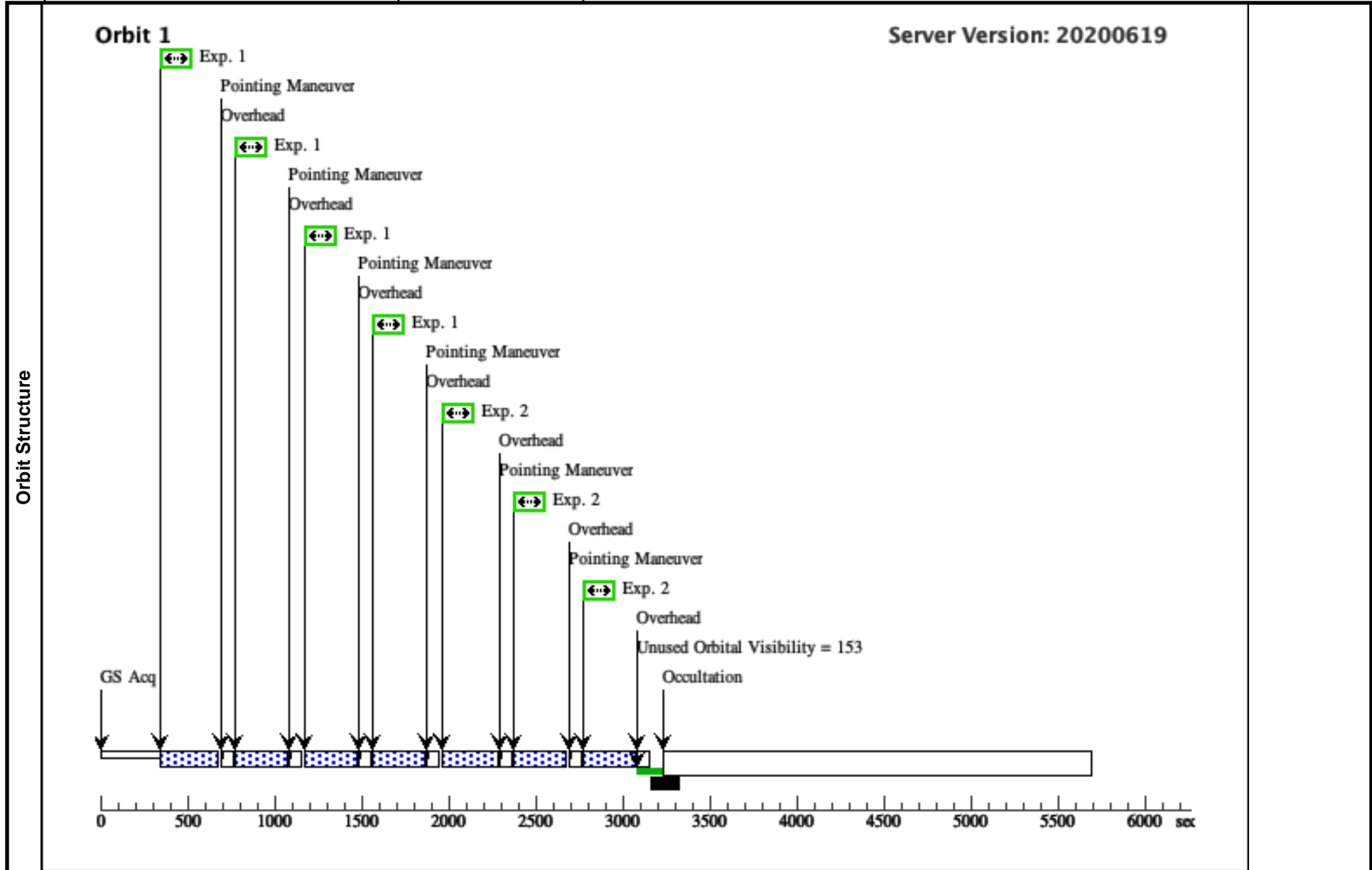




Proposal 16427 - Visit 11 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:30 GMT 2020

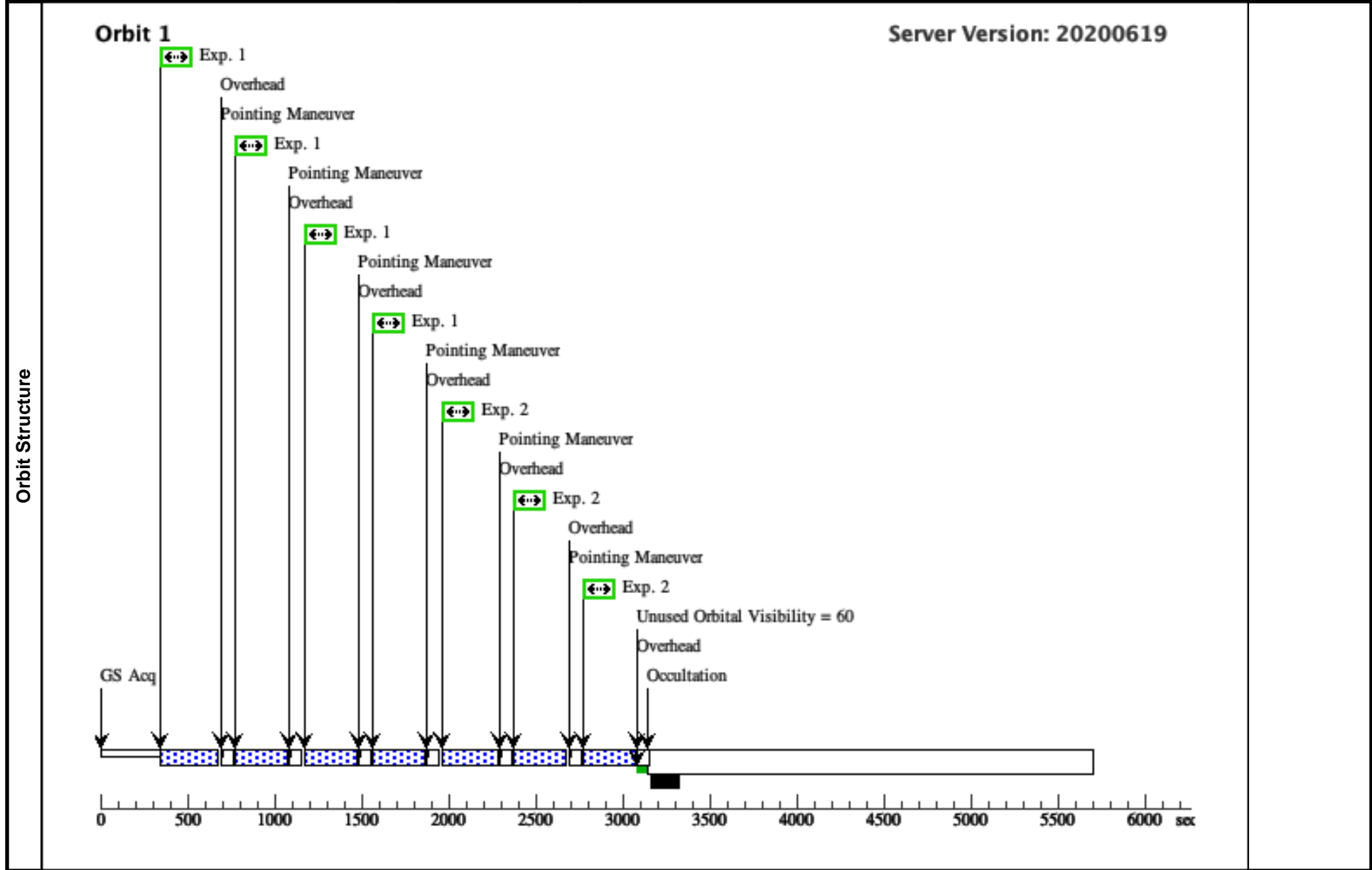
<b>Visit</b>	<b>Proposal 16427, Visit 11</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 11)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 11)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(11)	SDSSJ164235.5+422350-COPY	RA: 16 42 35.5000 (250.6479167d) Dec: +42 23 50.00 (42.39722d) Equinox: J2000		V=17.95+/-0.1	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[STAR FORMING REGION]										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(11) SDSSJ164235.5+422350-COPY	(11) SDSSJ164235.5+422350-COPY	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 11 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(11) SDSSJ164235.5+422350-COPY	(11) SDSSJ164235.5+422350-COPY	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 11 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 16427 - Visit 08 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:30 GMT 2020

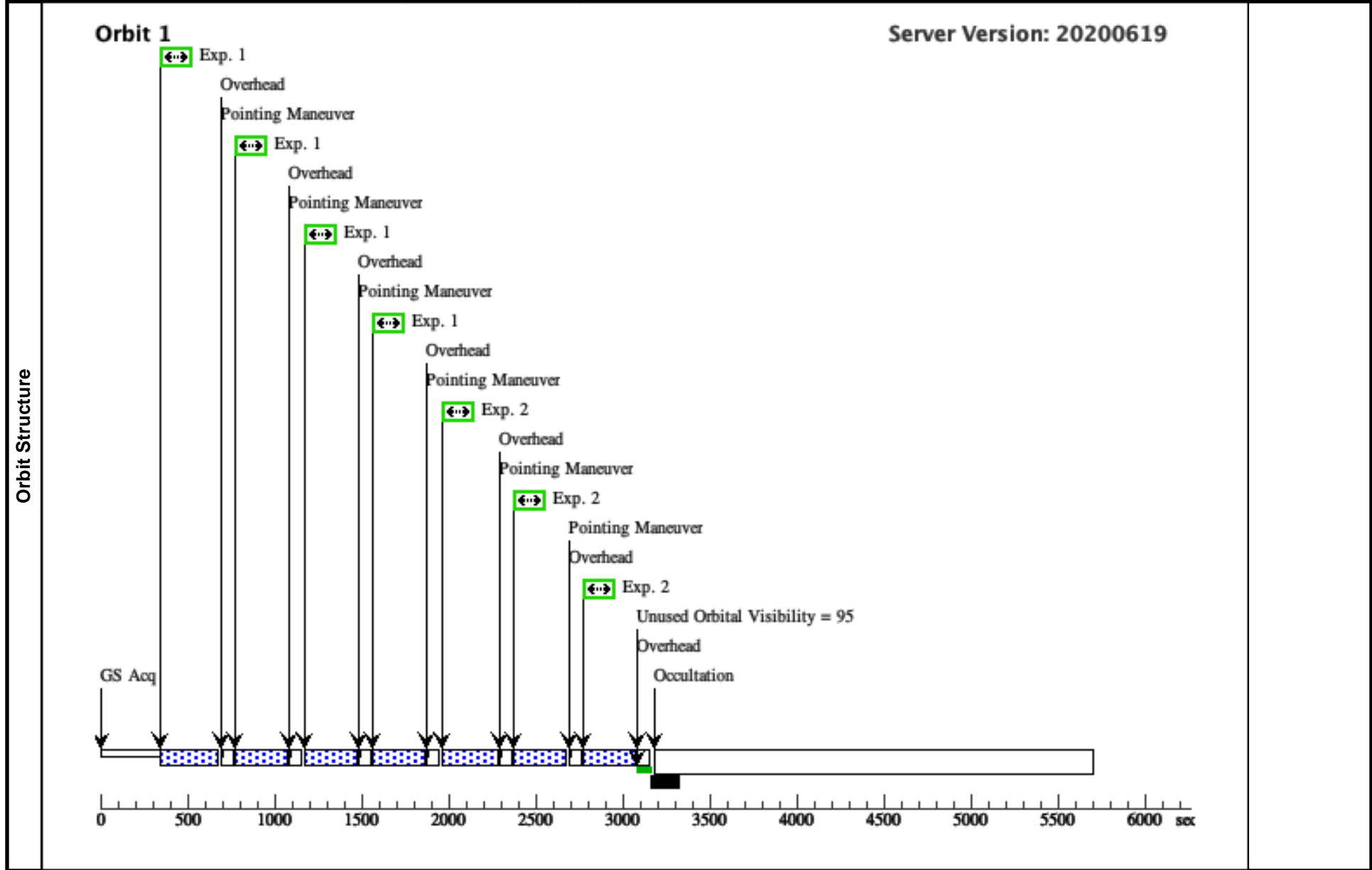
<b>Visit</b>	<b>Proposal 16427, Visit 08, scheduled</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 08)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 08)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)						
<b>Patterns</b>	(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
<b>Fixed Targets</b>	(8)	SDSSJ011729.1-084404	RA: 01 17 29.1000 (19.3712500d) Dec: -08 44 4.00 (-8.73444d) Equinox: J2000		V=17.91+/-0.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[STAR FORMING REGION]									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(8) SDSSJ011729.1-084404	(8) SDSSJ011729.1-084404	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 08 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(8) SDSSJ011729.1-084404	(8) SDSSJ011729.1-084404	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 08 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	



Proposal 16427 - Visit 09 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:30 GMT 2020

<b>Visit</b>	<b>Proposal 16427, Visit 09, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 09)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 09)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)					
<b>Patterns</b>	(2)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
<b>Fixed Targets</b>	(9)	SDSS080739.35+311218.2	RA: 08 07 39.3500 (121.9139583d) Dec: +31 12 18.20 (31.20506d) Equinox: J2000		V=17.94+/-0.1	Reference Frame: ICRS				
	Comments: Category=GALAXY Description=[STAR FORMING REGION]									
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1		(9) SDSS080739.35+311218.2	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 09 (1)	300 Secs (1200 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
<b>Exposures</b>	2		(9) SDSS080739.35+311218.2	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 09 (2)	300 Secs (900 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]



Proposal 16427 - Visit 10 - The role of photons from X-ray binaries at reionization

Thu Dec 10 22:00:30 GMT 2020

<b>Visit</b>	<b>Proposal 16427, Visit 10, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Pattern 1, Exps 1-1 in Visit 10)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Pattern 2, Exps 2-2 in Visit 10)) Warning (Form): FLASH level may be too high for this exposure or a long subexposure. See extended explanation in the diagnostic browser									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(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)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(10)	SDSS235604.67-085423.4	RA: 23 56 4.6700 (359.0194583d) Dec: -08 54 23.40 (-8.90650d) Equinox: J2000		V=18.81+/-0.1	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[STAR FORMING REGION]										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(10) SDSS235604.67-085423.4	(10) SDSS235604.67-085423.4	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F390W	FLASH=18		Pattern 1, Exps 1-1 in Visit 10 (1)	300 Secs (1200 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	(10) SDSS235604.67-085423.4	(10) SDSS235604.67-085423.4	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F775W	FLASH=15		Pattern 2, Exps 2-2 in Visit 10 (2)	300 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]	

