16066 - Tracing accretion disk winds across the electromagnetic spectrum in BHXRBs

Cycle: 27, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(2) SWIFTJ1858	COS/FUV COS/NUV	3	13-Mar-2020 16:00:53.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
51	(2) SWIFTJ1858	COS/FUV COS/NUV	3	13-Mar-2020 16:00:54.0	yes
52	(2) SWIFTJ1858	COS/FUV COS/NUV	3	13-Mar-2020 16:00:56.0	yes
53	(2) SWIFTJ1858	COS/FUV COS/NUV	3	13-Mar-2020 16:00:57.0	yes

12 Total Orbits Used

ABSTRACT

During their soft state edge-on black hole transients show blue-shifted absorption lines in their X-ray spectra due to hot and equatorial disk winds. Blue-shifted absorption lines have also been discovered in optical and ultraviolet(UV). These features must be produced in an outflow, but the physical conditions required to form them are very different. The three feautures have never been observed at the same time. It is unclear if they are linked to distinct outflows or simply with different regions. We propose to answer this question with simultaneous time-resolved spectroscopy of a high-inclination soft-state system in the X-ray, UV and optical bands. This will allow us to test if the three types of wind features are present simultaneously and whether they display correlated variability.

OBSERVING DESCRIPTION

We will observe LMXRB in the soft state coordinated with XMM-Newton. Ideally we will have 3 visits, at the begining, mid and end of the XMM exposure, in order to swarch for simultaneous accretion disk winds in the X-ray and FUV.

Visit

Proposal 16066, Swift J1858 Soft state (01), failed Fri Mar 13 20:00:57 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: ON HOLD

On Hold Comments: ToO

Fixed Targets

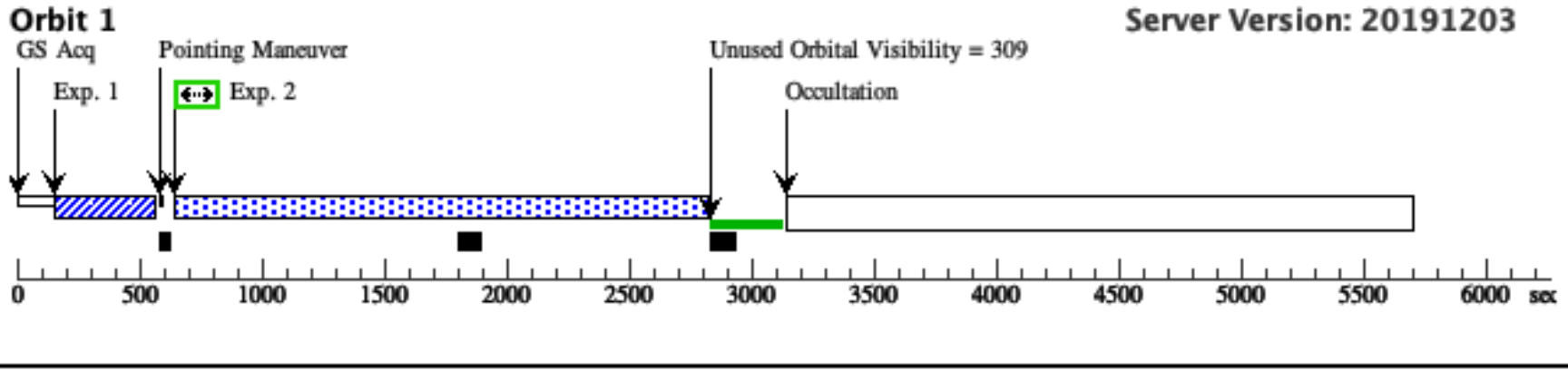
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SWIFTJ1858	RA: 18 58 34.8932 (284.6453883d) Dec: -08 14 14.94 (-8.23748d) Equinox: J2000		V=16.85+/-0.18 1.04 +/- 0.07 x 10^-15 ergs/s/cm^2/A at 1928A (Swift/UVOT UW2) on 26 Feb	Reference Frame: ICRS

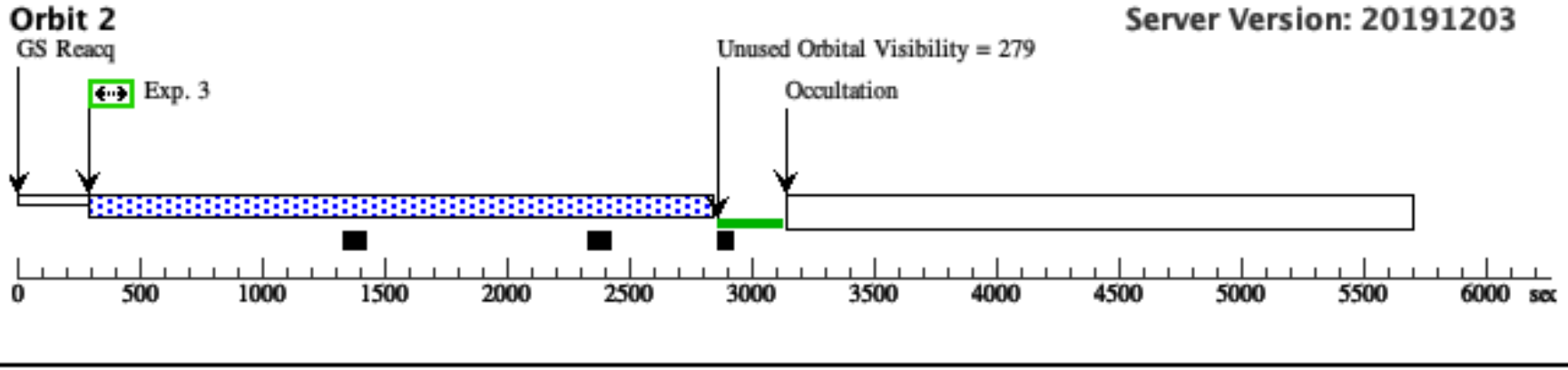
Comments:
Category=STAR
Description=[ACCRETION DISK, JET, WIND, X-RAY NOVAE]
Extended=NO

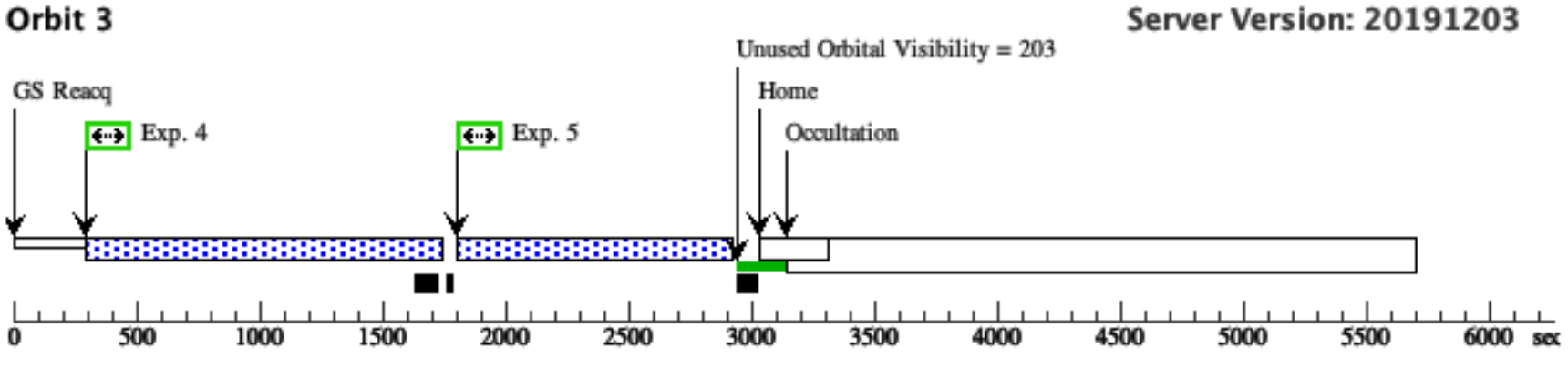
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (COS.ta.1417131)	(2) SWIFTJ1858	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				60 Secs (60 Secs) *[==>]*	*[1]*
	Comments: I tried different spectral configurations for the target aquisition: *COS.ta.1417131* *COS.ta.1417132* *COS.ta.1417134*								
2	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=1			2000 Secs (2000 Secs) *[==>]*	*[1]*
	Comments: Otther spetral shapes are considered here: *COS.sp.1416844* *COS.sp.1416867* *COS.sp.1416865*								
3	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=2			2500 Secs (2500 Secs) *[==>]*	*[2]*
4	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1300; FP-POS=3			1400 Secs (1400 Secs) *[==>]*	*[3]*
5	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1500; FP-POS=4			1071 Secs (1071 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 16066, Swift J1858 Soft state (51), completed Fri Mar 13 20:00:57 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Fixed Targets

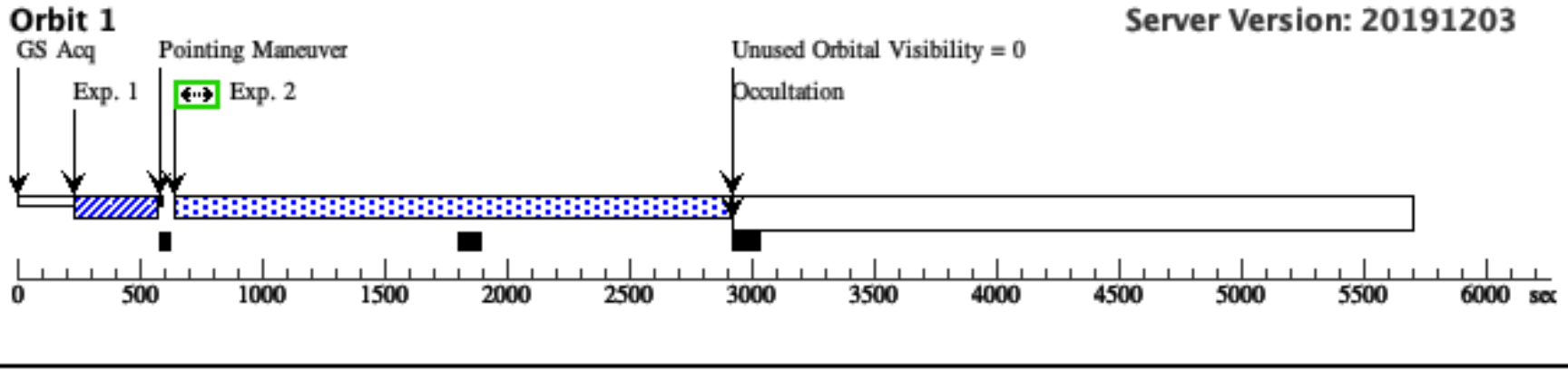
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SWIFTJ1858	RA: 18 58 34.8932 (284.6453883d) Dec: -08 14 14.94 (-8.23748d) Equinox: J2000		V=16.85+/-0.18 1.04 +/- 0.07 x 10^-15 ergs/s/cm^2/A at 1928A (Swift/UVOT UW2) on 26 Feb	Reference Frame: ICRS

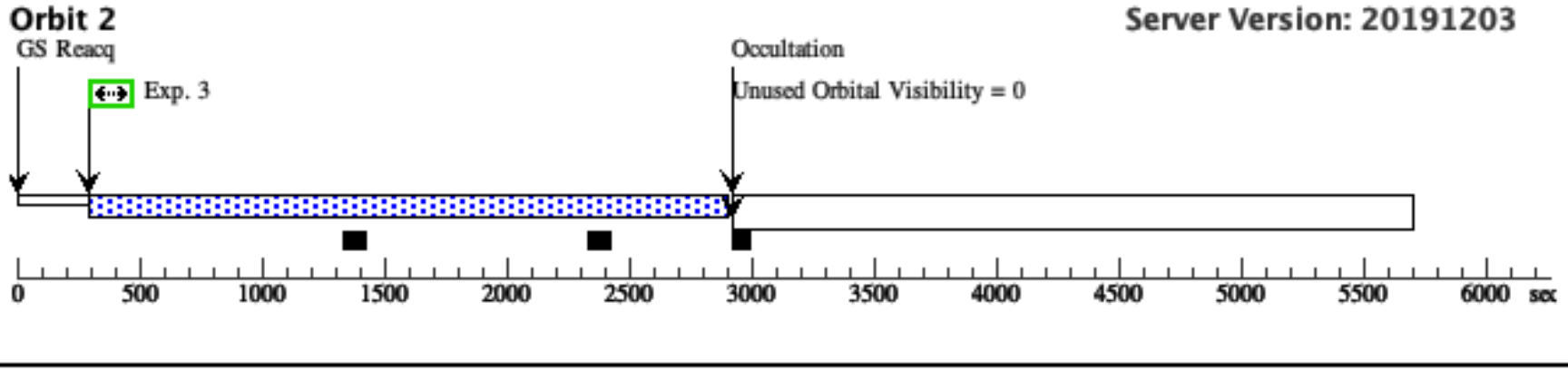
Comments:
Category=STAR
Description=[ACCRETION DISK, JET, WIND, X-RAY NOVAE]
Extended=NO

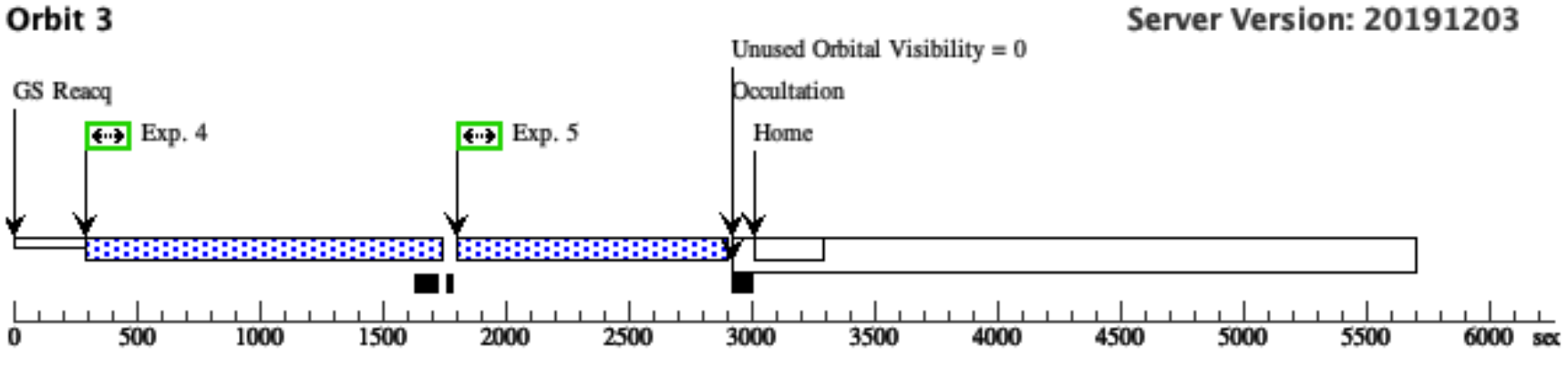
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (COS.ta.1423573)	(2) SWIFTJ1858	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) *[==>]*	***[1]***
Comments: I tried different spectral configurations for the target aquisition: COS.ta.1423594 COS.ta.1423593									
2	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=1			2000 Secs (2086 Secs) *[==>2086.0 Secs]*	***[1]***
Comments: Otther spetral shapes are considered here: COS.sp.1416844 COS.sp.1416867 COS.sp.1416865									
3	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=2			2500 Secs (2556 Secs) *[==>2556.0 Secs]*	***[2]***
4	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1300; FP-POS=3			1400 Secs (1400 Secs) *[==>]*	***[3]***
5	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1500; FP-POS=4			1051 Secs (1051 Secs) *[==>]*	***[3]***

Orbit Structure







Visit

Proposal 16066, Swift J1858 Soft state (52), implementation Fri Mar 13 20:00:57 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Fixed Targets

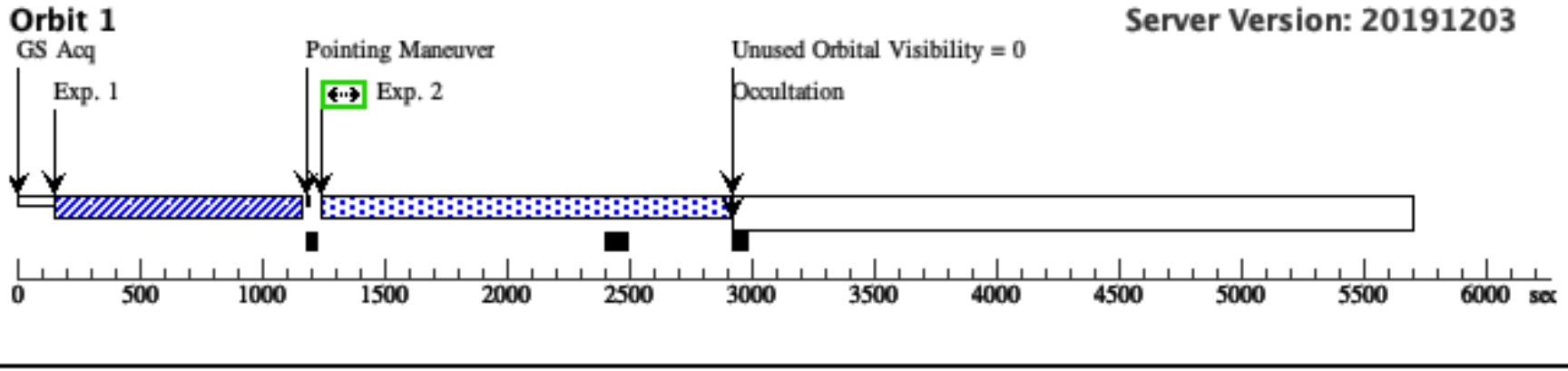
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SWIFTJ1858	RA: 18 58 34.8932 (284.6453883d) Dec: -08 14 14.94 (-8.23748d) Equinox: J2000		V=16.85+/-0.18 1.04 +/- 0.07 x 10^-15 ergs/s/cm^2/A at 1928A (Swift/UVOT UW2) on 26 Feb	Reference Frame: ICRS

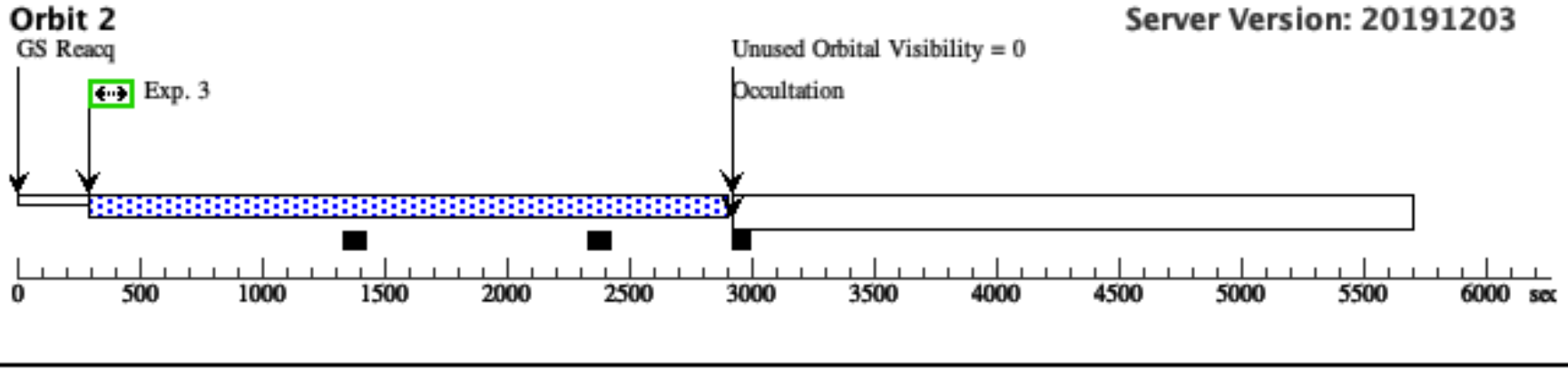
Comments:
Category=STAR
Description=[ACCRETION DISK, JET, WIND, X-RAY NOVAE]
Extended=NO

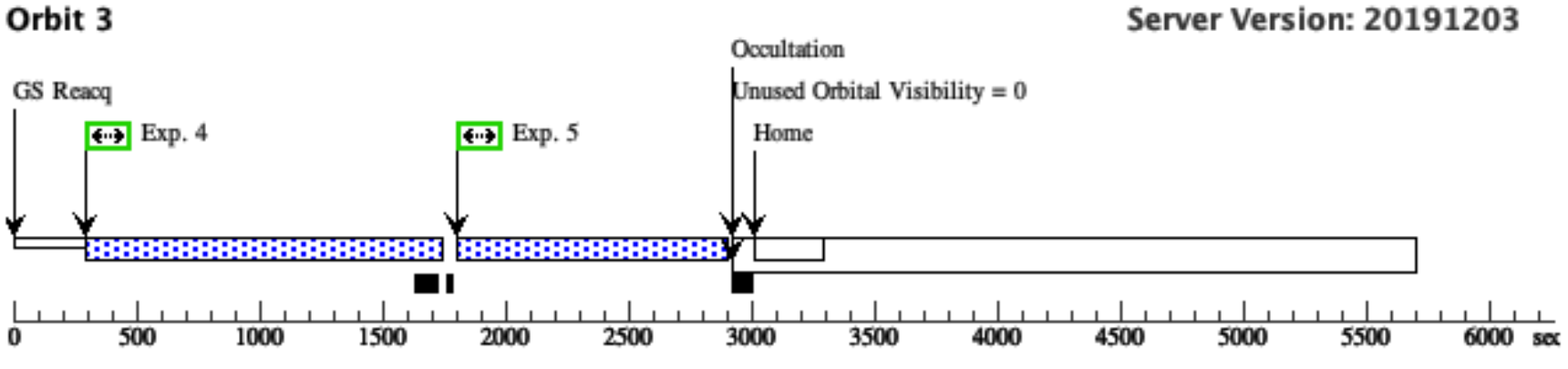
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (COS.ta.1432136)	(2) SWIFTJ1858	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				360 Secs (360 Secs) *[==>]*	*[1]*
2	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=1			2000 Secs (1486 Secs) *[==>1486.0 Secs]*	*[1]*
	Comments: Otther spetral shapes are considered here: *COS.sp.1416844* *COS.sp.1416867* *COS.sp.1416865*								
3	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=2			2500 Secs (2556 Secs) *[==>2556.0 Secs]*	*[2]*
4	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1300; FP-POS=3			1400 Secs (1400 Secs) *[==>]*	*[3]*
5	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1500; FP-POS=4			1051 Secs (1051 Secs) *[==>]*	*[3]*

Orbit Structure







Visit

Proposal 16066, Swift J1858 Soft state (53), implementation Fri Mar 13 20:00:58 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SWIFTJ1858	RA: 18 58 34.8932 (284.6453883d) Dec: -08 14 14.94 (-8.23748d) Equinox: J2000		V=16.85+/-0.18 1.04 +/- 0.07 x 10^-15 ergs/s/cm^2/A at 1928A (Swift/UVOT UW2) on 26 Feb	Reference Frame: ICRS

Comments:
Category=STAR
Description=[ACCRETION DISK, JET, WIND, X-RAY NOVAE]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (COS.ta.1432136)	(2) SWIFTJ1858	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				360 Secs (360 Secs) *[==>]*	*[1]*
2	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=1			2000 Secs (1486 Secs) *[==>1486.0 Secs]*	*[1]*
	Comments: Otther spetral shapes are considered here: *COS.sp.1416844* *COS.sp.1416867* *COS.sp.1416865*								
3	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1000; FP-POS=2			2500 Secs (2556 Secs) *[==>2556.0 Secs]*	*[2]*
4	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1300; FP-POS=3			1400 Secs (1400 Secs) *[==>]*	*[3]*
5	SCI (COS.sp.1416844)	(2) SWIFTJ1858	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=1500; FP-POS=4			1051 Secs (1051 Secs) *[==>]*	*[3]*

Orbit Structure