16489 - Outflow Legacy Accretion Survey: unveiling the wind driving mechanism in BHXRBs

Cycle: 28, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Dr. Nick Higginbottom (CoI) (ESA Member)	University of Southampton
Dr. James Matthews (CoI) (ESA Member)	University of Cambridge

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
03	(3) SWIFJ1727	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	03-Oct-2023 09:01:02.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
04	(3) SWIFJ1727	STIS/CCD STIS/FUV-MAMA	2	03-Oct-2023 09:01:04.0	yes
05	(3) SWIFJ1727	STIS/CCD STIS/FUV-MAMA	2	03-Oct-2023 09:01:05.0	yes
06	(3) SWIFJ1727	STIS/CCD STIS/FUV-MAMA	2	03-Oct-2023 09:01:06.0	yes
07	(3) SWIFJ1727	STIS/CCD STIS/FUV-MAMA	2	03-Oct-2023 09:01:08.0	yes
A5	(3) SWIFJ1727	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	03-Oct-2023 09:01:10.0	yes
A7	(3) SWIFJ1727	COS/FUV	2	03-Oct-2023 09:01:11.0	yes
08	(3) SWIFJ1727	COS/FUV	2	03-Oct-2023 09:01:11.0	yes
09	(3) SWIFJ1727	COS/FUV	2	03-Oct-2023 09:01:12.0	yes

18 Total Orbits Used

ABSTRACT

Transient black-hole X-ray binaries viewed at high inclinations display blue-shifted absorption lines in their X-ray spectra. These features are the signatures of powerful, hot and equatorial accretion disk winds being driven from these systems in their luminous soft states. Remarkably, blue-shifted absorption lines have recently also been discovered in optical and NIR recombination lines and ultraviolet resonance features. These features must also be produced in an outflow, but the physical conditions traced by these outflows are different. Despite this, the characteristic Doppler velocities of all three types of signatures are comparable, yet they have never been observed simultaneously. It is therefore completely unclear if they are associated with distinct outflows (e.g. driven by different mechanisms) or simply with different regions/phases within the same outflow. Here, we propose to answer this question by carrying out simultaneous time-resolved spectroscopy of a high-inclination system in the X-ray, ultraviolet and optical bands, in its two distinct physical configurations (hard- and soft-states). This will allow us to test if the three types of wind features are present simultaneously, and, if so, whether they display correlated variability and/or velocity structure.

OBSERVING DESCRIPTION

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

Given the unknown UV luminosity of the transient I am leaving different observing strategies in this mock phase II.

Once we have a suitable target I will update all this carefully.

For now the target is Swift J1858 which is a transient where we triggered similar programs during the past two cycles.

Visit

Proposal 16489, NUV-FUV (03), failed Tue Oct 03 13:01:12 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD, STIS/FUV-MAMA

Special Requirements: TOO RESPONSE TIME 21.0D

Diagnostics

(NUV-FUV (03)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

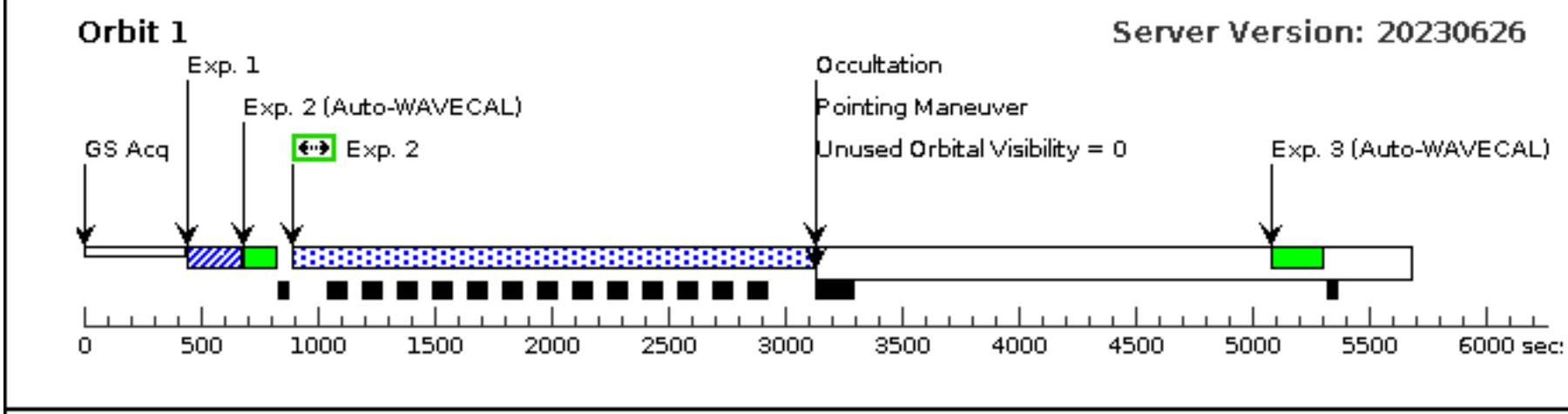
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

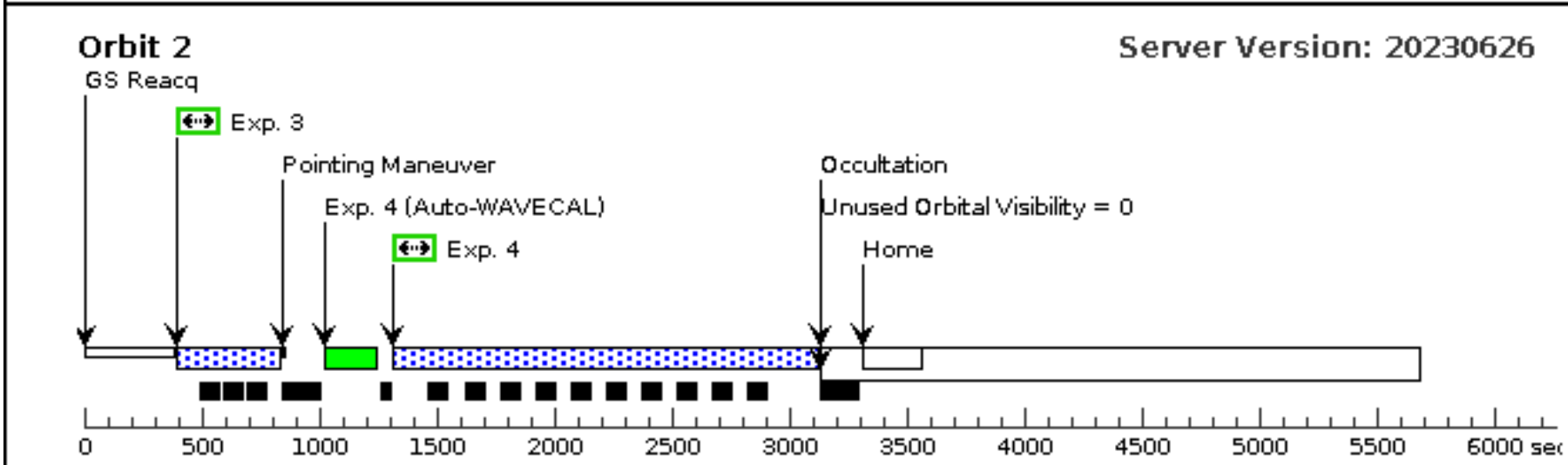
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1889474)	(3) SWIFJ1727	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	***[1]***
Comments: For this we used a 25kK Blackbody with 0.34 extinction									
2	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=150			3000 Secs (2215 Secs) *[==>2215.0 Secs]*	***[1]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									
3	NUV (STIS.sp.1889476)	(3) SWIFJ1727	STIS/NUV-MAMA, TIME-TAG, 0.2X0.06	E230M 2707 A	BUFFER-TIME=99			430 Secs (422 Secs) *[==>422.0 Secs]*	***[2]***
Comments: NUV with the higher flux and realistic 25kK blackbody emission with 2e-12 erg/s/cm2/A @ 2030 will give buffer warnings:STIS.sp.1889476 *about 60% of the photons will be lost due to buffer overload. 400s should give a good signal to noise to estimate the extinction and tetect any weak emission line.*									
4	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=150			1800 Secs (1792 Secs) *[==>1792.0 Secs]*	***[2]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									

Orbit Structure





Visit

Proposal 16489, FUV (04), completed Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: TOO RESPONSE TIME 21.0D

Diagnostics

(FUV (04)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

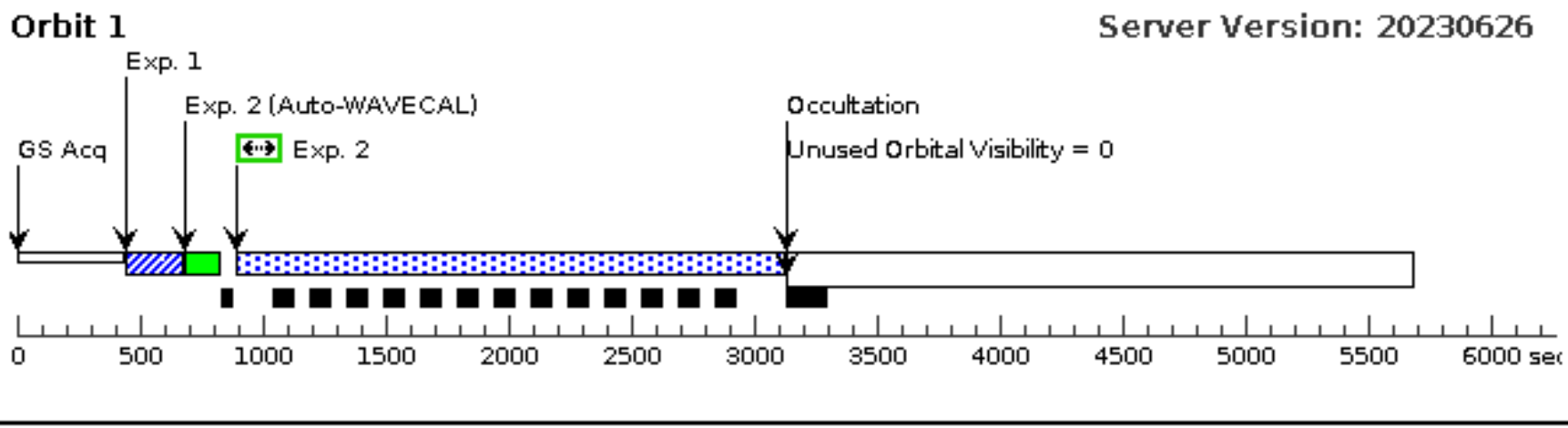
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

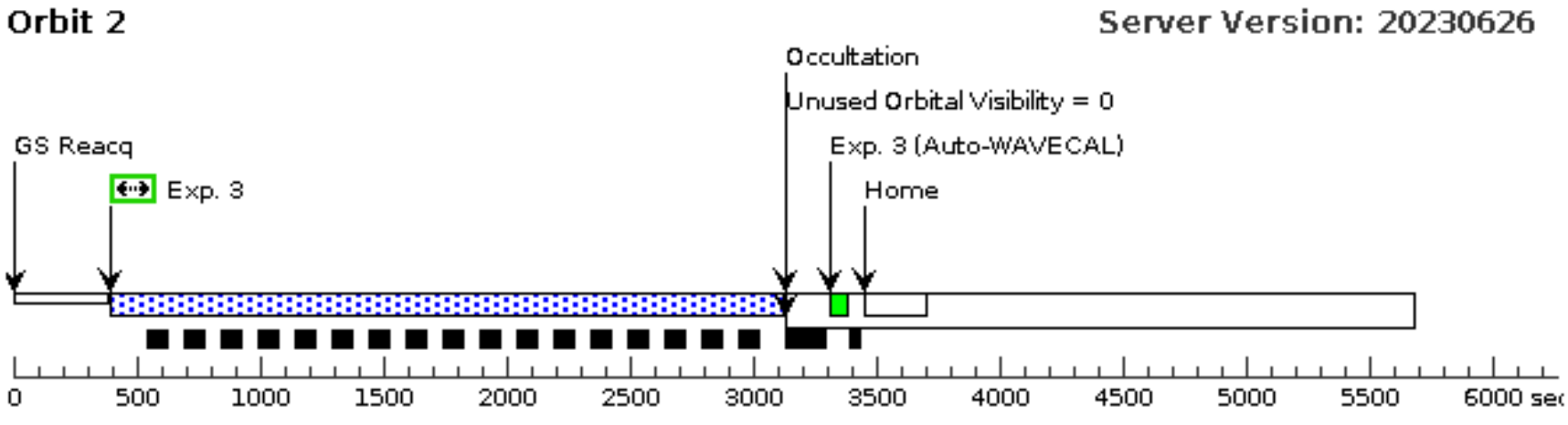
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1889474)	(3) SWIFJ1727	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	***[1]***
Comments: For this we used a 25kK Blackbody with 0.34 extinction									
2	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=150			2000 Secs (2215 Secs) *[==>2215.0 Secs]*	***[1]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*								
3	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=150			3000 Secs (2717 Secs) *[==>2717.0 Secs]*	***[2]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*								

Orbit Structure





Visit

Proposal 16489, FUV (05), withdrawn Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: TOO RESPONSE TIME 21.0D

Diagnostics

(FUV (05)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

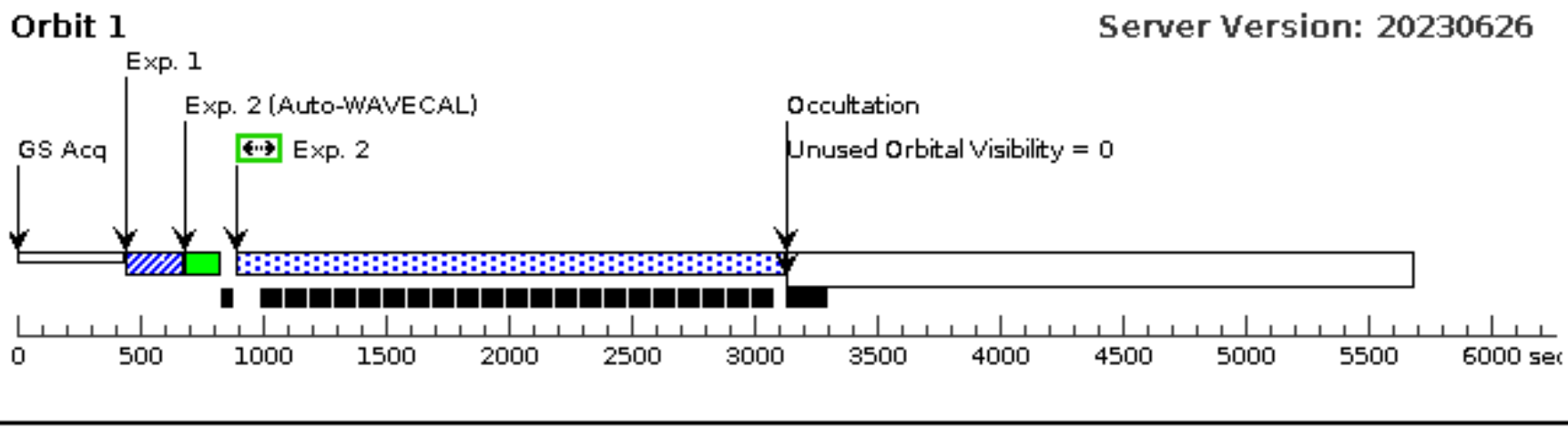
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

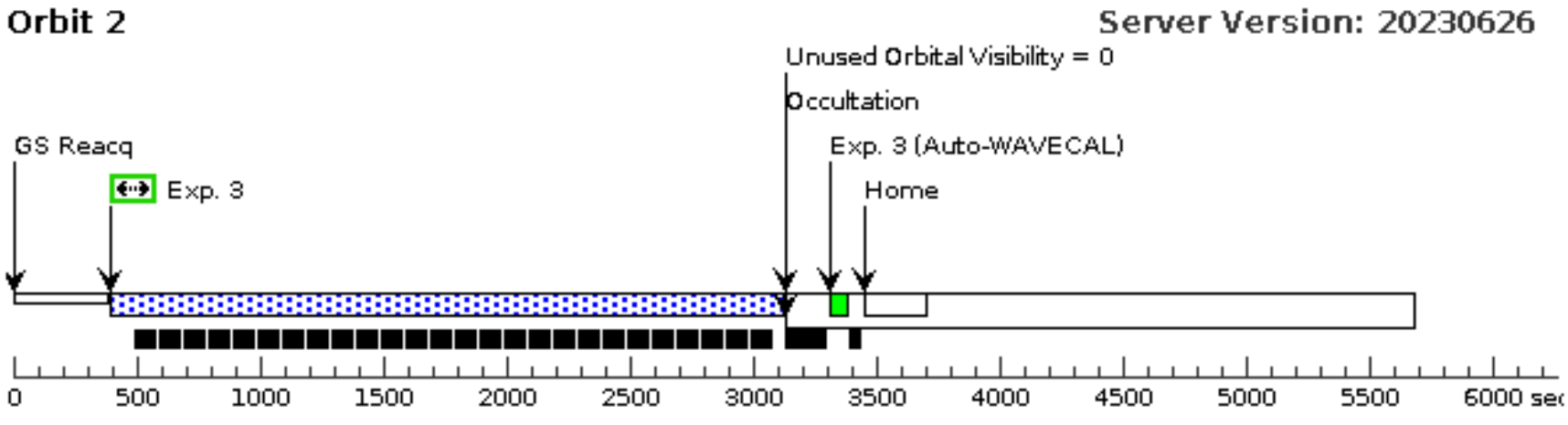
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1889474)	(3) SWIFJ1727	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	***[1]***
Comments: For this we used a 25kK Blackbody with 0.34 extinction									
2	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			2000 Secs (2215 Secs) *[==>2215.0 Secs]*	***[1]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*								
3	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			3000 Secs (2717 Secs) *[==>2717.0 Secs]*	***[2]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*								

Orbit Structure





Visit

Proposal 16489, FUV (06), scheduled Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: TOO RESPONSE TIME 21.0D

Diagnostics

(FUV (06)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

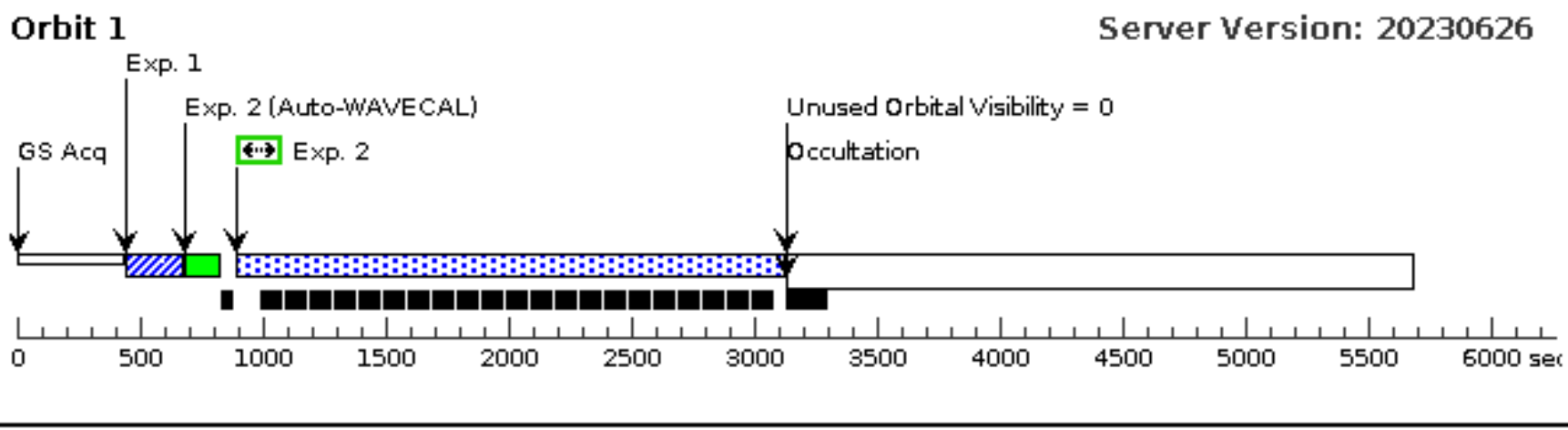
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

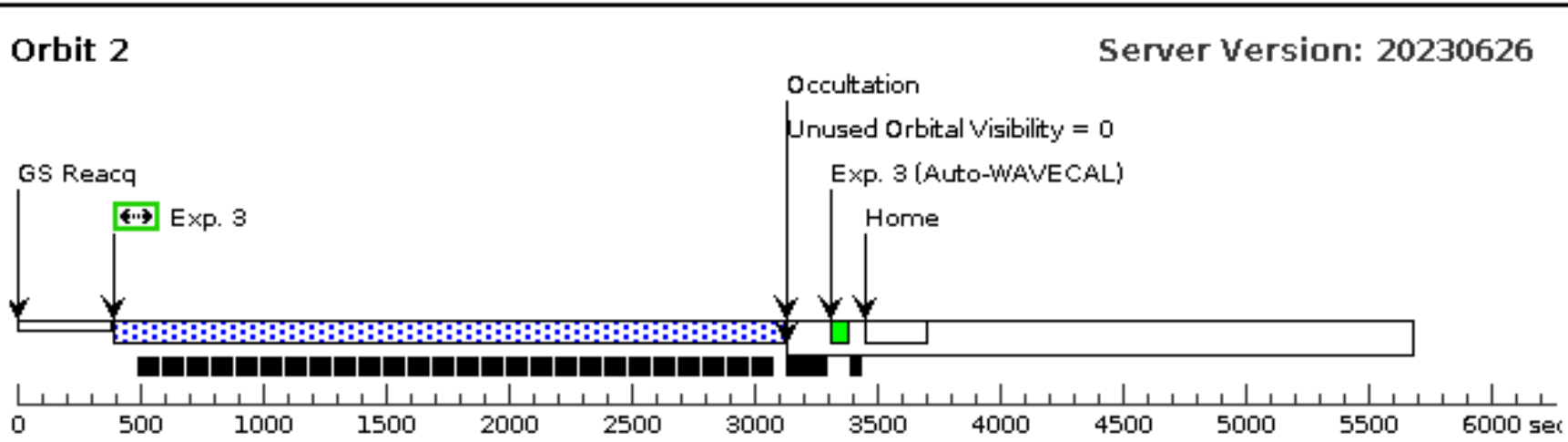
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1889474)	(3) SWIFJ1727	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	 ***[1]***
Comments: For this we used a 25kK Blackbody with 0.34 extinction									
2	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			2000 Secs (2215 Secs) *[==>2215.0 Secs]*	 ***[1]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									
3	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			3000 Secs (2717 Secs) *[==>2717.0 Secs]*	 ***[2]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									

Orbit Structure





Visit

Proposal 16489, FUV (07), scheduling Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: TOO RESPONSE TIME 21.0D

Diagnostics

(FUV (07)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

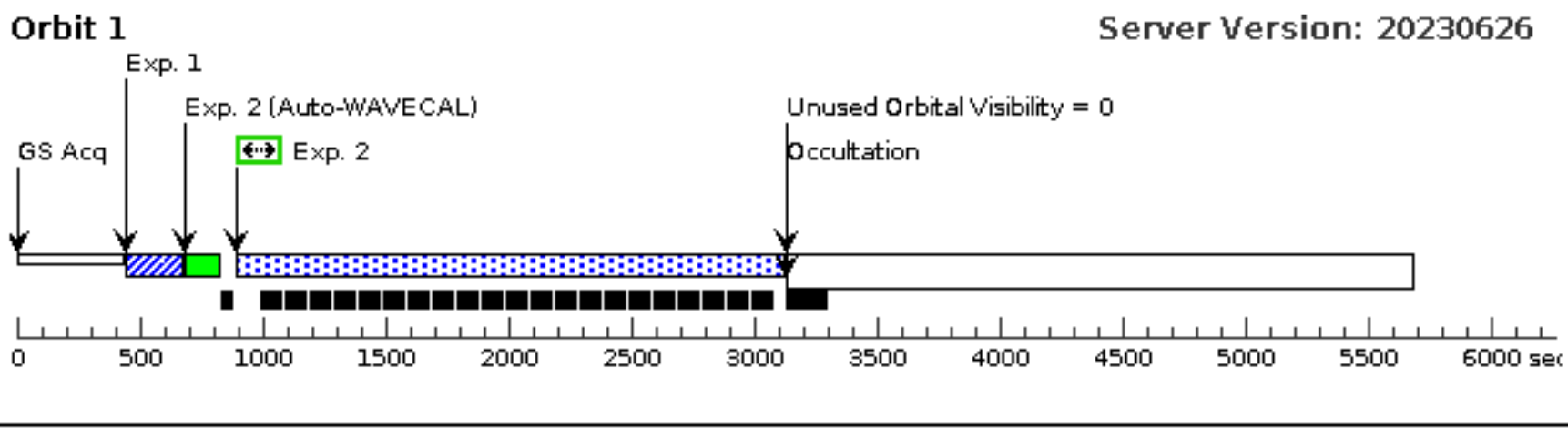
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

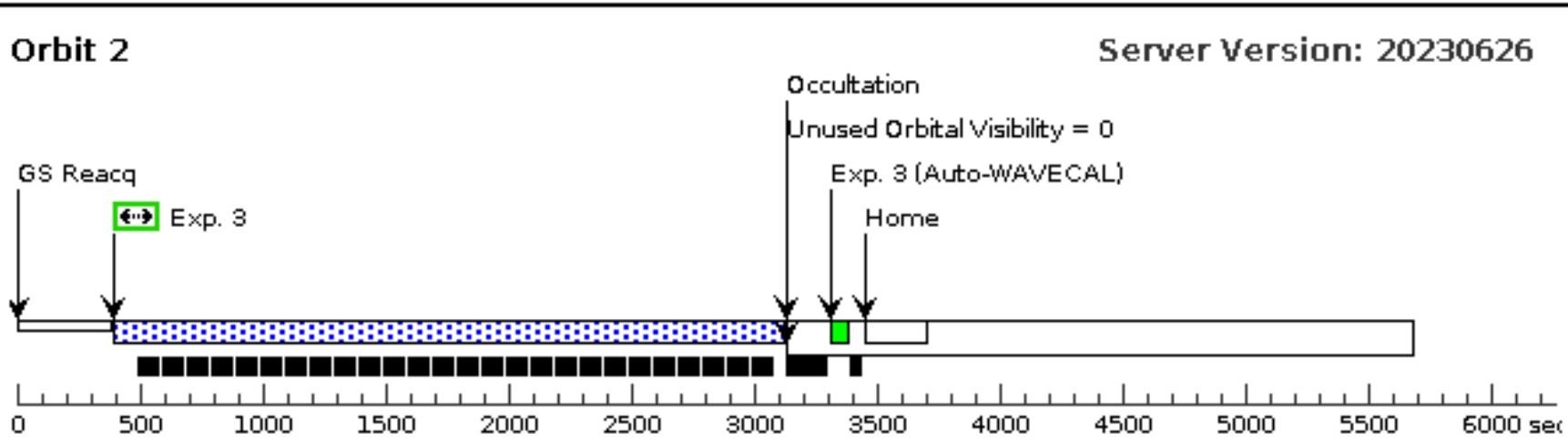
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1889474)	(3) SWIFJ1727	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	***[1]***
Comments: For this we used a 25kK Blackbody with 0.34 extinction									
2	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			2000 Secs (2215 Secs) *[==>2215.0 Secs]*	***[1]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									
3	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			3000 Secs (2717 Secs) *[==>2717.0 Secs]*	***[2]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									

Orbit Structure





Visit

Proposal 16489, FUV (A5), completed Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: Warning

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD, STIS/FUV-MAMA

Special Requirements: TOO RESPONSE TIME 21.0D

Diagnostics

(FUV (A5)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

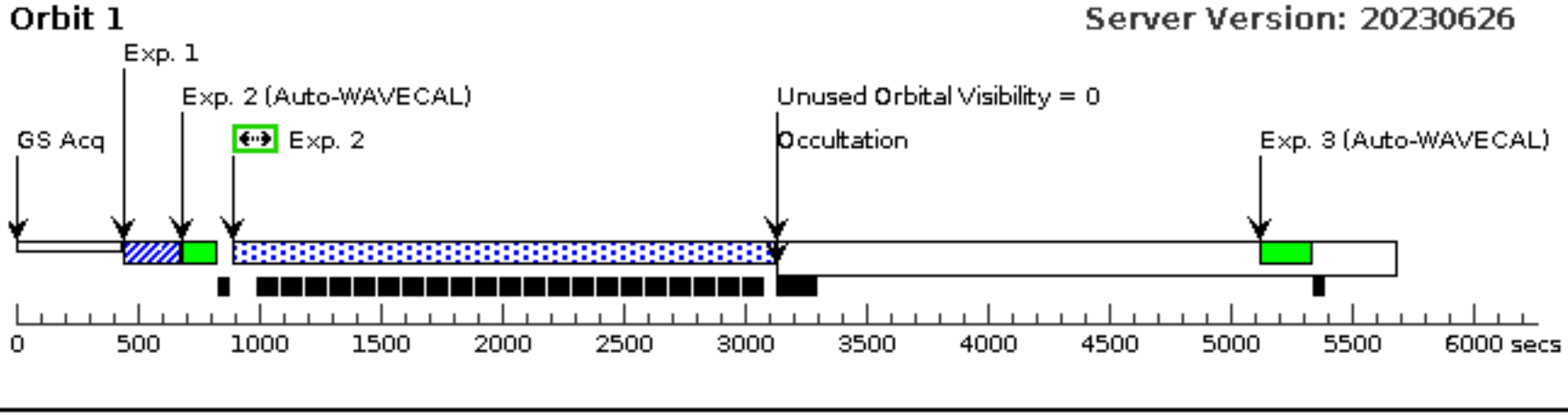
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

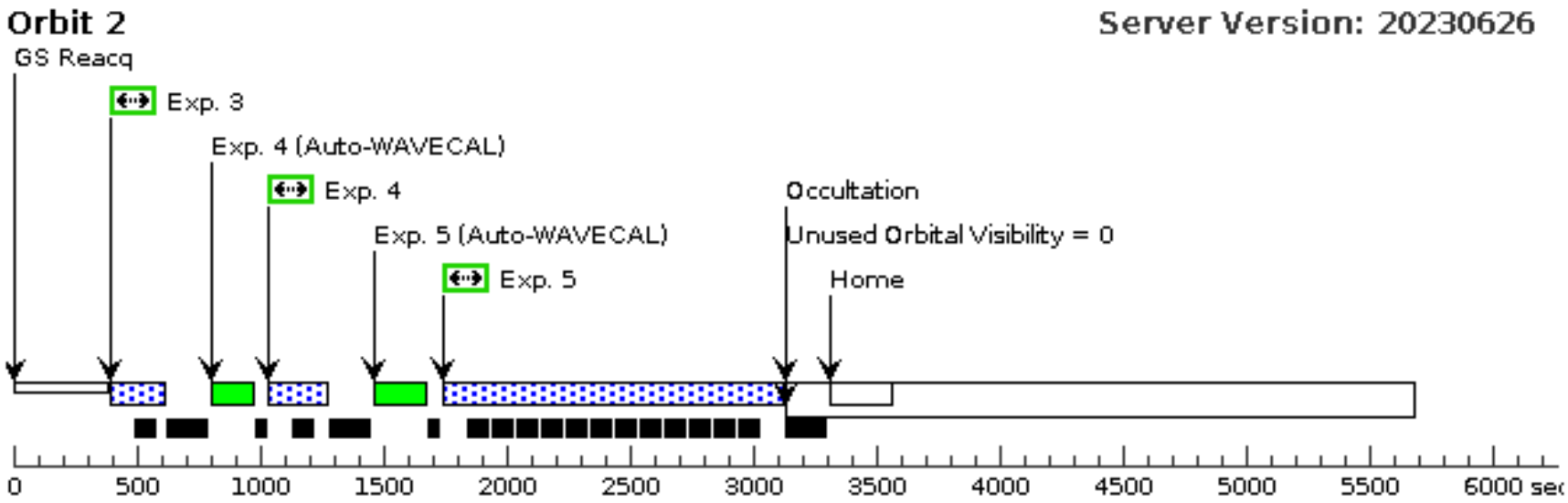
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1889474)	(3) SWIFJ1727	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	***[1]***
Comments: For this we used a 25kK Blackbody with 0.34 extinction									
2	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			2000 Secs (2215 Secs) *[==>2215.0 Secs]*	***[1]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									
3	NUV (STIS.sp.1892367)	(3) SWIFJ1727	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=99			200 Secs (200 Secs) *[==>]*	***[2]***
Comments: NUV with the higher flux and realistic 25kK blackbody emission with 2e-12 erg/s/cm2/A @ 2030 will give buffer warnings:STIS.sp.1889476 *about 60% of the photons will be lost due to buffer overload. 400s should give a good signal to noise to estimate the extinction and tetect any weak emission line.*									
4	NUV (STIS.sp.1889476)	(3) SWIFJ1727	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 2707 A	BUFFER-TIME=99			220 Secs (220 Secs) *[==>]*	***[2]***
Comments: NUV with the higher flux and realistic 25kK blackbody emission with 2e-12 erg/s/cm2/A @ 2030 will give buffer warnings:STIS.sp.1889476 *about 60% of the photons will be lost due to buffer overload. 400s should give a good signal to noise to estimate the extinction and tetect any weak emission line.* *0.5e-12 at 2600 -- STIS.sp.1892366*									
5	FUV (STIS.sp.1889421)	(3) SWIFJ1727	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=100			1363 Secs (1363 Secs) *[==>]*	***[2]***
Comments: Quoted ETC is for a 25kK blackbody based on standard theory, using the line of sight extinction. radio observations of the current outburst confirm the extinction is at least the 0.34 observed by the dust maps. *The NUV flux used it for the ETC simulation is 2E-12 (ergs/s/cm2/AA) at 2030 Angstroms. More than the highest flux ever observed by swift UVOT (1.7E-12) only in one observation. All the other observations have NUV fluxes are below 1.3.* *To be even more conservative we also estimated the count rate for extinction E(B-V) = 0.2: STIS.sp.1889430* *Increasing the flux a factor of 2 of the above, 25kK and E(B-V)=0.2 will only lead a buffer warning: STIS.sp.1889442* *An blackbody with infitinte temperature and 0.35 extinction and 2E-12 flux only lead to a buffer warning: STIS.sp.1889438* *The target shows small modulation of 0.5 mag in the optical the optical V band from 12.5 to 13, less than a factor of two and consistent with the observed variability in the Swift UVOT observations.*									

Orbit Structure





Visit

Proposal 16489, FUV (A7), scheduled Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

Fixed Targets

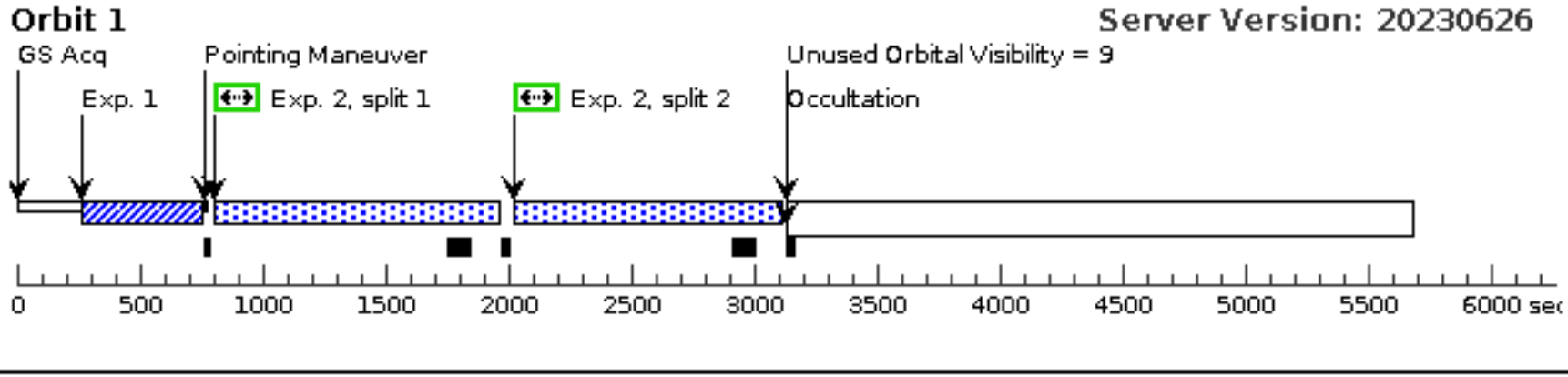
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

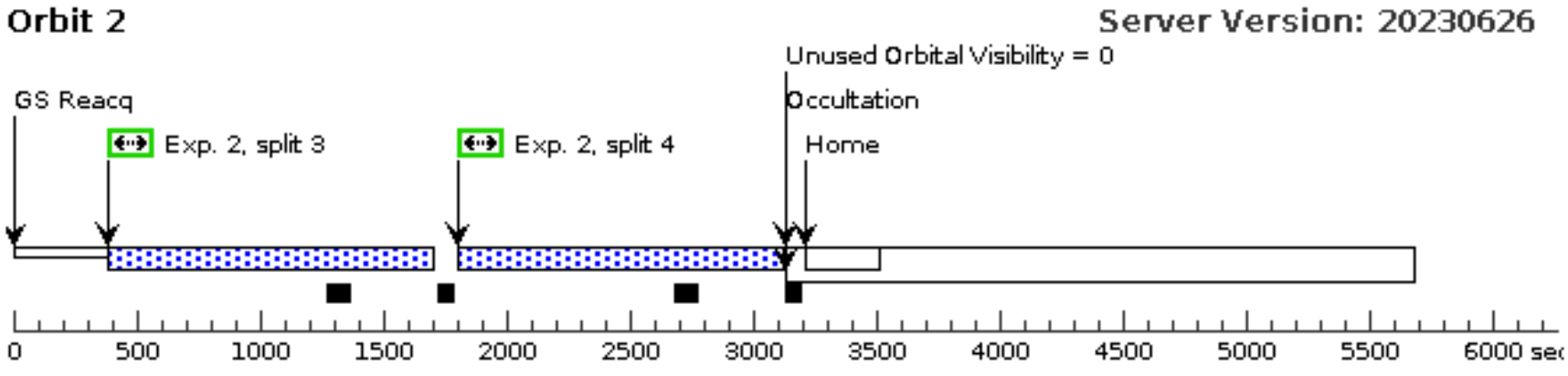
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.1892724)	(3) SWIFJ1727	COS/FUV, ACQ/SEARCH, PSA	G140L 1105 A	SCAN-SIZE=2			40 Secs (40 Secs)	
								[==>]	***[1]***
	Comments: FUV flux matched to the observed as of 25th Sep								
2	(COS.sp.1892725)	(3) SWIFJ1727	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=8500; FP-POS=ALL			1000 Secs (4616 Secs)	
								[==>1038.0 Secs (Split 1)]	***[1]***
								[==>1038.0 Secs (Split 2)]	
								[==>1270.0 Secs (Split 3)]	***[2]***
								[==>1270.0 Secs (Split 4)]	
	Comments: 2500K BB generously matching the observed FUV flux from HST obs taken on 25th Sep								

Orbit Structure





Visit

Proposal 16489, FUV (08), implementation Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

Fixed Targets

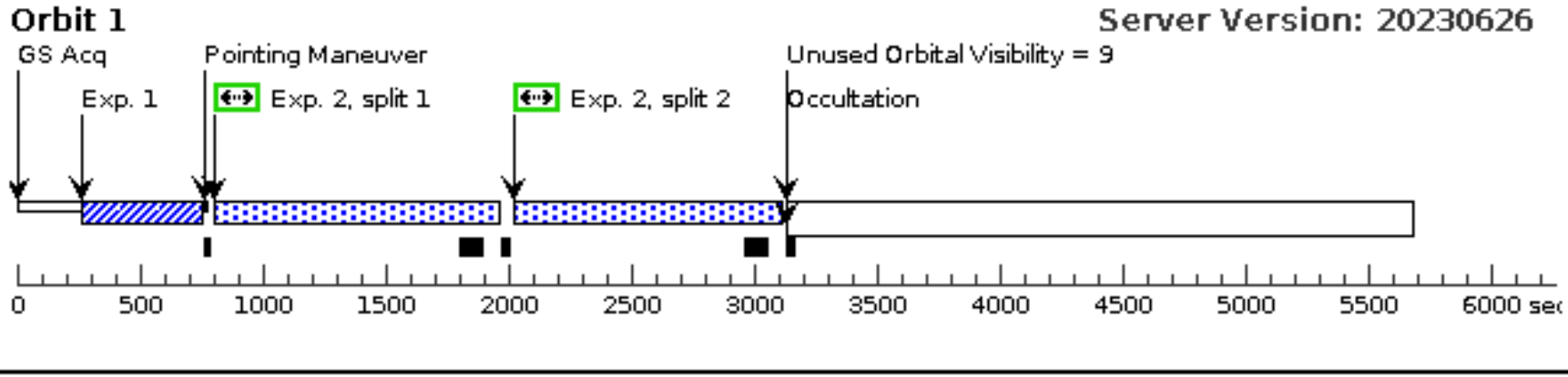
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

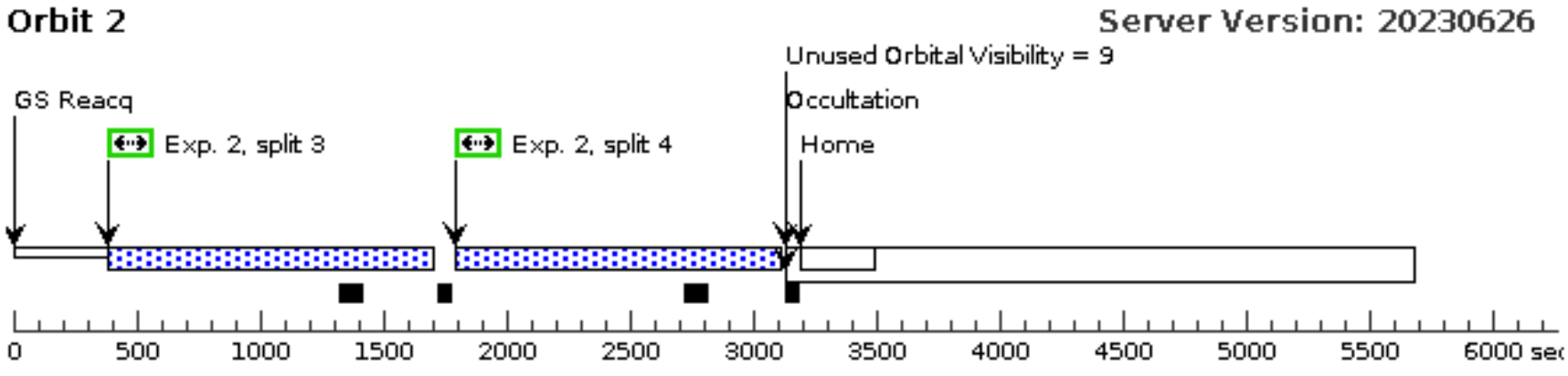
Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.1892724)	(3) SWIFJ1727	COS/FUV, ACQ/SEARCH, PSA	G140L 1105 A	SCAN-SIZE=2			40 Secs (40 Secs)	
								[==>]	***[1]***
	Comments: FUV flux matched to the observed as of 25th Sep								
2	(COS.sp.1892725)	(3) SWIFJ1727	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=9000; FP-POS=ALL			1000 Secs (4616 Secs)	
								[==>1038.0 Secs (Split 1)] *[==>1038.0 Secs (Split 2)]*	***[1]***
								[==>1270.0 Secs (Split 3)] *[==>1270.0 Secs (Split 4)]*	***[2]***
	Comments: 2500K BB generously matching the observed FUV flux from HST obs taken on 25th Sep								

Orbit Structure





Visit

Proposal 16489, FUV (09)

Tue Oct 03 13:01:13 GMT 2023

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SWIFJ1727	RA: 17 27 43.3100 (261.9304583d) Dec: -16 12 19.23 (-16.20534d) Equinox: J2000	Epoch of Position: 2000	V=13+/-0.1	Reference Frame: ICRS

Comments:
Category=STAR
Description=[LMXB, X-RAY NOVAE, X-RAY TRANSIENT]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.1892724)	(3) SWIFJ1727	COS/FUV, ACQ/SEARCH, PSA	G140L 1105 A	SCAN-SIZE=2			40 Secs (40 Secs) *[==>]*	 ***[1]***
Comments: FUV flux matched to the observed as of 25th Sep									
2	(COS.sp.1892725)	(3) SWIFJ1727	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=9000; FP-POS=ALL			1000 Secs (4616 Secs) *[==>1038.0 Secs (Split 1)]* *[==>1038.0 Secs (Split 2)]* *[==>1270.0 Secs (Split 3)]* *[==>1270.0 Secs (Split 4)]*	 ***[1]*** ***[2]***
Comments: 2500K BB generously matching the observed FUV flux from HST obs taken on 25th Sep									

Orbit Structure