17775 - Double Trouble: Understanding the Origins of Double Peaked Tidal Disruption Events

Cycle: 32, 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	(1) AT-2022DBL	WFC3/UVIS	1	14-Mar-2025 20:00:12.0	yes
02	(1) AT-2022DBL	WFC3/UVIS	1	14-Mar-2025 20:00:13.0	yes
03	(1) AT-2022DBL	WFC3/UVIS	1	14-Mar-2025 20:00:13.0	yes
04	(2) AT2019AALC	WFC3/UVIS	1	14-Mar-2025 20:00:13.0	yes
05	(2) AT2019AALC	WFC3/UVIS	1	14-Mar-2025 20:00:14.0	yes
06	(2) AT2019AALC	WFC3/UVIS	1	14-Mar-2025 20:00:14.0	yes
07	(3) AT-2020VDQ	WFC3/UVIS	1	14-Mar-2025 20:00:15.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
08	(3) AT-2020VDQ	WFC3/UVIS	1	14-Mar-2025 20:00:15.0	yes
09	(3) AT-2020VDQ	WFC3/UVIS	1	14-Mar-2025 20:00:16.0	yes
10	(4) AT-2022EXR	WFC3/UVIS	1	14-Mar-2025 20:00:16.0	yes
11	(4) AT-2022EXR	WFC3/UVIS	1	14-Mar-2025 20:00:16.0	yes
12	(4) AT-2022EXR	WFC3/UVIS	1	14-Mar-2025 20:00:17.0	yes

12 Total Orbits Used

ABSTRACT

Tidal disruption events (TDEs), the flares produced when a star is disrupted by supermassive black hole, present a unique opportunity to study the accretion processes around black holes, and to probe their fundamental properties. For partial TDEs (pTDEs), events where only a small fraction of the star is disrupted, some cases can exhibit multiple peaks within the light curve, where the star undergoes repeat disruptions as its orbit cyclically brings it back within the vicinity of the black hole. Such events are the holy grail of TDE studies, as their intrinsic set-up provides strong constraints upon the disrupting system. However, they are expected to be extremely rare: approximately 0.1% of the TDE population.

Long term monitoring from modern transient surveys have now revealed 5 TDE events whose light curves exhibit two distinct peaks. This unprecedented sample of repeating pTDE candidates is troubling, as it implies repeating pTDEs are far more frequent than theory suggests. Here we propose joint HST WFC3 and Gemini GMOS-IFU observations of the host galaxies of repeating pTDEs, to explore their structure, kinematics and gravitational potential on scales of ~100pc. With these data we will determine if the properties of the host galaxy environment are enhancing the likelihood of repeating pTDEs, and thus elucidate why such a large sample of double peaked TDEs exists.

OBSERVING DESCRIPTION

We will obtain UVIS imaging in the F438W, F625W and F814W bands of the host galaxies of 4 repeating partial tidal disruption events.

We aim to observe each galaxy to a depth of 26 mag arcsec^-2 in each filter. For each target we will split our observations over 3 visits of 1 orbit, as follows:

- Visit 1: 4x ~550~s exposure in F438W in a 4-point dither pattern
- Visit 2: 2x ~650s exposure in F438W, 2x 400s exposures in F625W. All observations in a 2-point dither pattern

- Visit 3: 2x ~650s exposure in F438W, 2x 350s exposures in F814W. All observations in a 2-point dither pattern

A POS TARG offset of +/-0.1 arcsec has been applied to the F438W imaging in visits 2 and 3 to assure that if visits are happen to be executed at the same value of roll angle, the stellar pattern is not aligned on the same pixels.

Visit

Proposal 17775, AT2022dbl Visit 1 (01), implementation Sat Mar 15 00:00:17 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	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

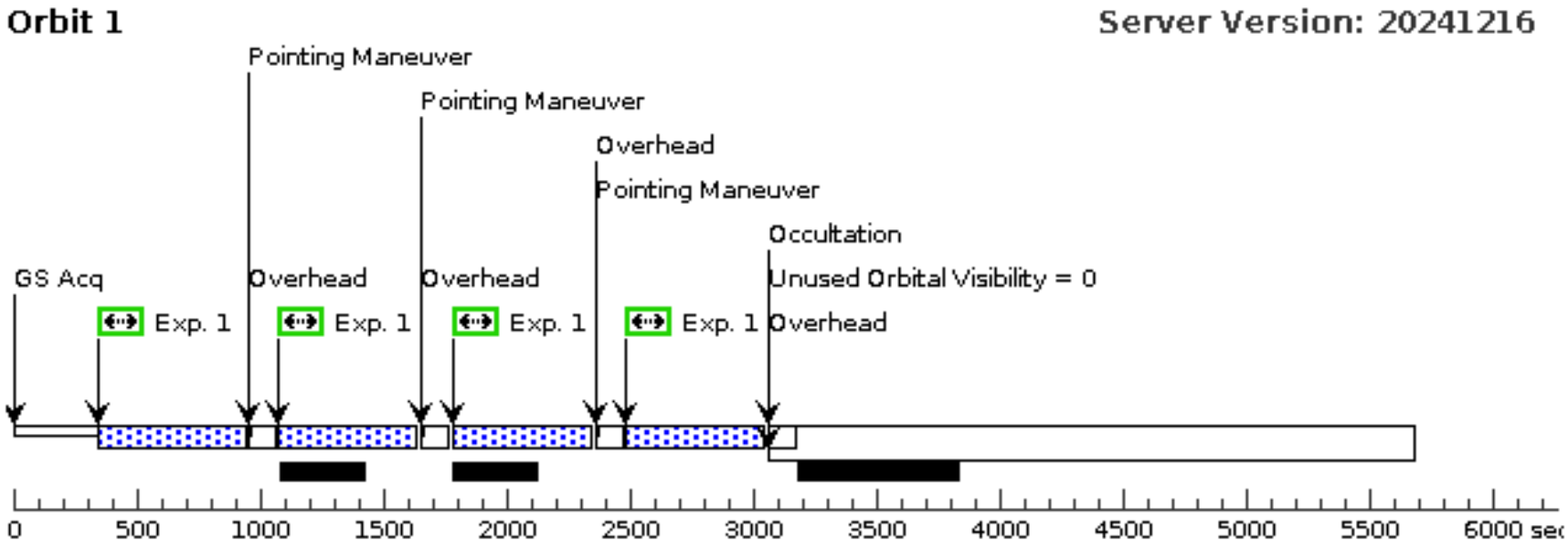
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	AT-2022DBL	RA: 12 20 45.0100 (185.1875417d) Dec: +49 33 4.68 (49.55130d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.0284	V=15.50	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[ELLIPTICAL]
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(1) AT-2022DBL	WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=12		Pattern 2, Exps 1-1 in AT2022dbl Visit 1 (01) (2)	567 Secs (2269 Secs) *[==>568.0 Secs (Pattern 1)]* *[==>567 Secs (Pattern 2)]* *[==>567 Secs (Pattern 3)]* *[==>567 Secs (Pattern 4)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2022dbl Visit 2 (02), implementation Sat Mar 15 00:00:17 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

Fixed Targets

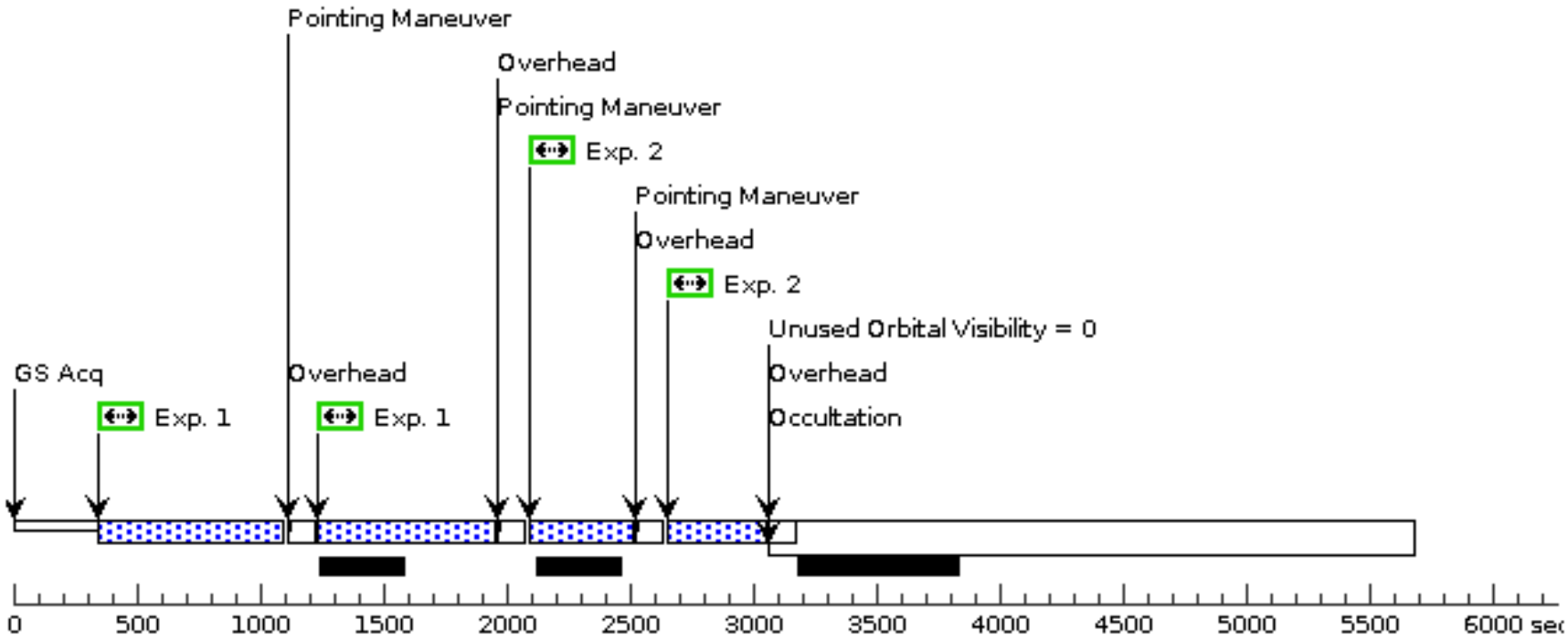
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	AT-2022DBL	RA: 12 20 45.0100 (185.1875417d) Dec: +49 33 4.68 (49.55130d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.0284	V=15.50	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[ELLIPTICAL]
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(1) AT-2022DBL	WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=12	POS TARG -0.1,-0.1	Pattern 1, Exps 1-1 in AT2022dbl Visit 2 (02) (1)	600 Secs (1446 Secs) *[==>723.0 Secs (Pattern 1)]* *[==>723.0 Secs (Pattern 2)]*	***[1]***
2	F625W	(1) AT-2022DBL	WFC3/UVIS, ACCUM, UVIS2	F625W	FLASH=12		Pattern 1, Exps 2-2 in AT2022dbl Visit 2 (02) (1)	430 Secs (800 Secs) *[==>400 Secs (Pattern 1)]* *[==>400 Secs (Pattern 2)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2022dbl Visit 3 (03), implementation Sat Mar 15 00:00:17 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first/second visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

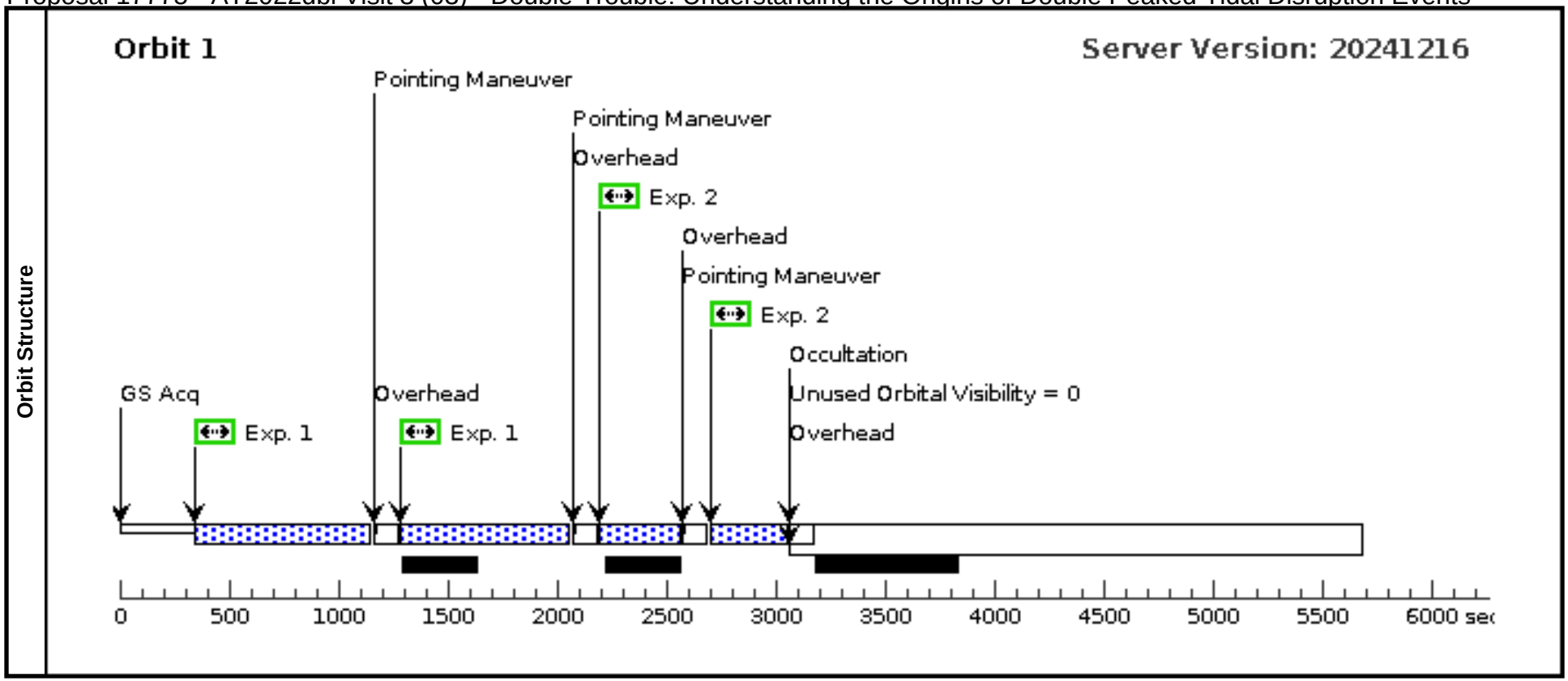
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	AT-2022DBL	RA: 12 20 45.0100 (185.1875417d) Dec: +49 33 4.68 (49.55130d) Equinox: J2000	Epoch of Position: 2000 Redshift: 0.0284	V=15.50	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[ELLIPTICAL]
Extended=YES

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(1) AT-2022DBL	WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=12	POS TARG +0.1,+0.1	Pattern 1, Exps 1-1 in AT2022dbl Visit 3 (03) (1)	600 Secs (1549 Secs) *[==>774.0 Secs (Pattern 1)]* *[==>775.0 Secs (Pattern 2)]*	***[1]***
2	F814W	(1) AT-2022DBL	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=12		Pattern 1, Exps 2-2 in AT2022dbl Visit 3 (03) (1)	480 Secs (700 Secs) *[==>350.0 Secs (Pattern 1)]* *[==>350.0 Secs (Pattern 2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20241216
Pointing Maneuver
Pointing Maneuver
Overhead
Exp. 2
Overhead
Pointing Maneuver
Exp. 2
Occultation
Unused Orbital Visibility = 0
Overhead
GS Acq
Exp. 1
Overhead
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17775, AT2019aalc Visit 1 (04), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	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

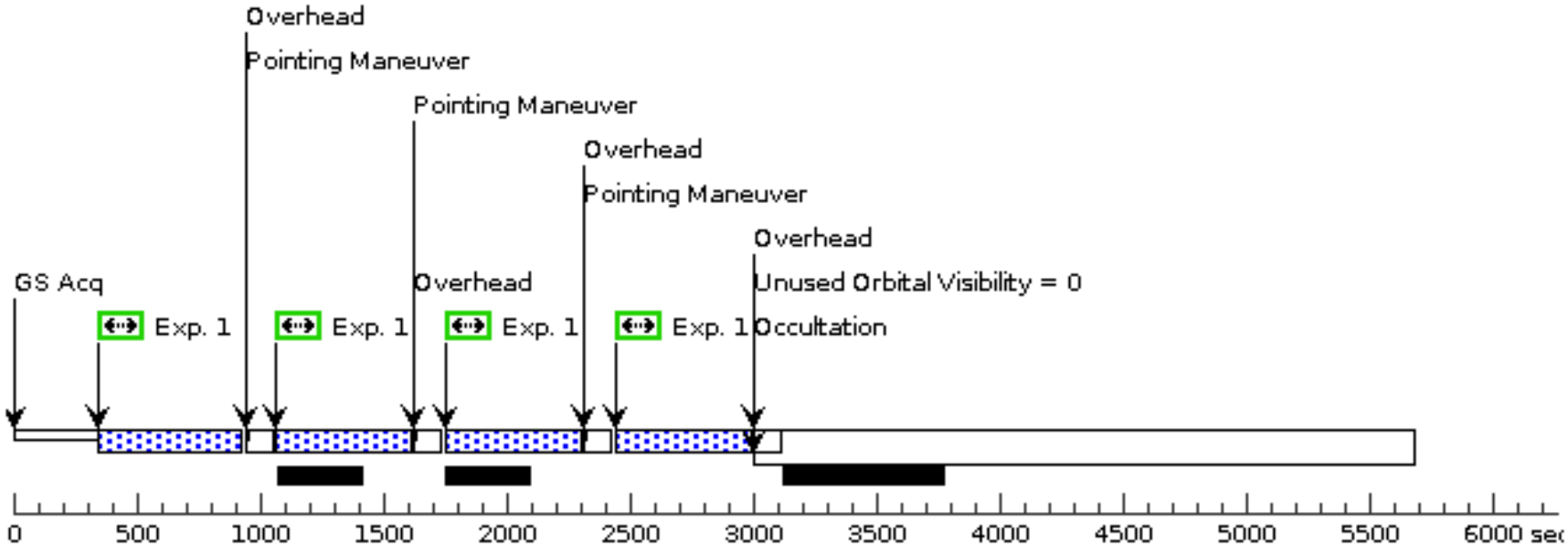
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	AT2019AALC	RA: 15 24 16.6600 (231.0694167d) Dec: +04 51 19.05 (4.85529d) Equinox: J2000		V=14.45	Reference Frame: TNS

Comments:
Category=GALAXY
Description=[SPIRAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(2) AT2019AALC	WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=12		Pattern 2, Exps 1-1 in AT2019aalc Visit 1 (04) (2)	1300 Secs (2212 Secs) *[==>553.0 Secs (Pattern 1)]* *[==>553.0 Secs (Pattern 2)]* *[==>553 Secs (Pattern 3)]* *[==>553 Secs (Pattern 4)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2019aalc Visit 2 (05), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

Fixed Targets

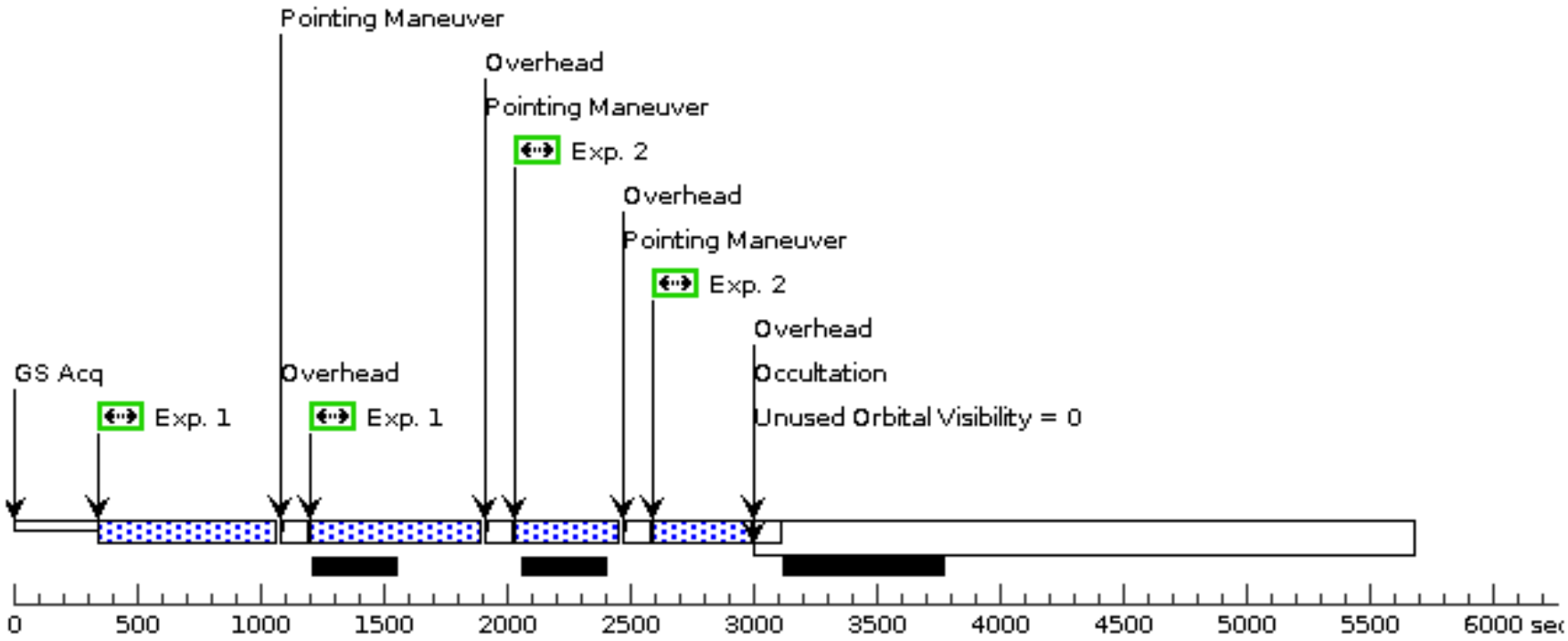
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	AT2019AALC	RA: 15 24 16.6600 (231.0694167d) Dec: +04 51 19.05 (4.85529d) Equinox: J2000		V=14.45	Reference Frame: TNS

Comments:
Category=GALAXY
Description=[SPIRAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(2) AT2019AALC	WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=12	POS TARG -0.1,-0.1	Pattern 1, Exps 1-1 in AT2019aalc Visit 2 (05) (1)	600 Secs (1389 Secs) *[==>695.0 Secs (Pattern 1)]* *[==>694.0 Secs (Pattern 2)]*	***[1]***
2	F625W	(2) AT2019AALC	WFC3/UVIS, ACCUM, UVIS2	F625W	FLASH=12		Pattern 1, Exps 2-2 in AT2019aalc Visit 2 (05) (1)	430 Secs (800 Secs) *[==>400 Secs (Pattern 1)]* *[==>400 Secs (Pattern 2)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2019aalc Visit 3 (06), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first/second visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

Fixed Targets

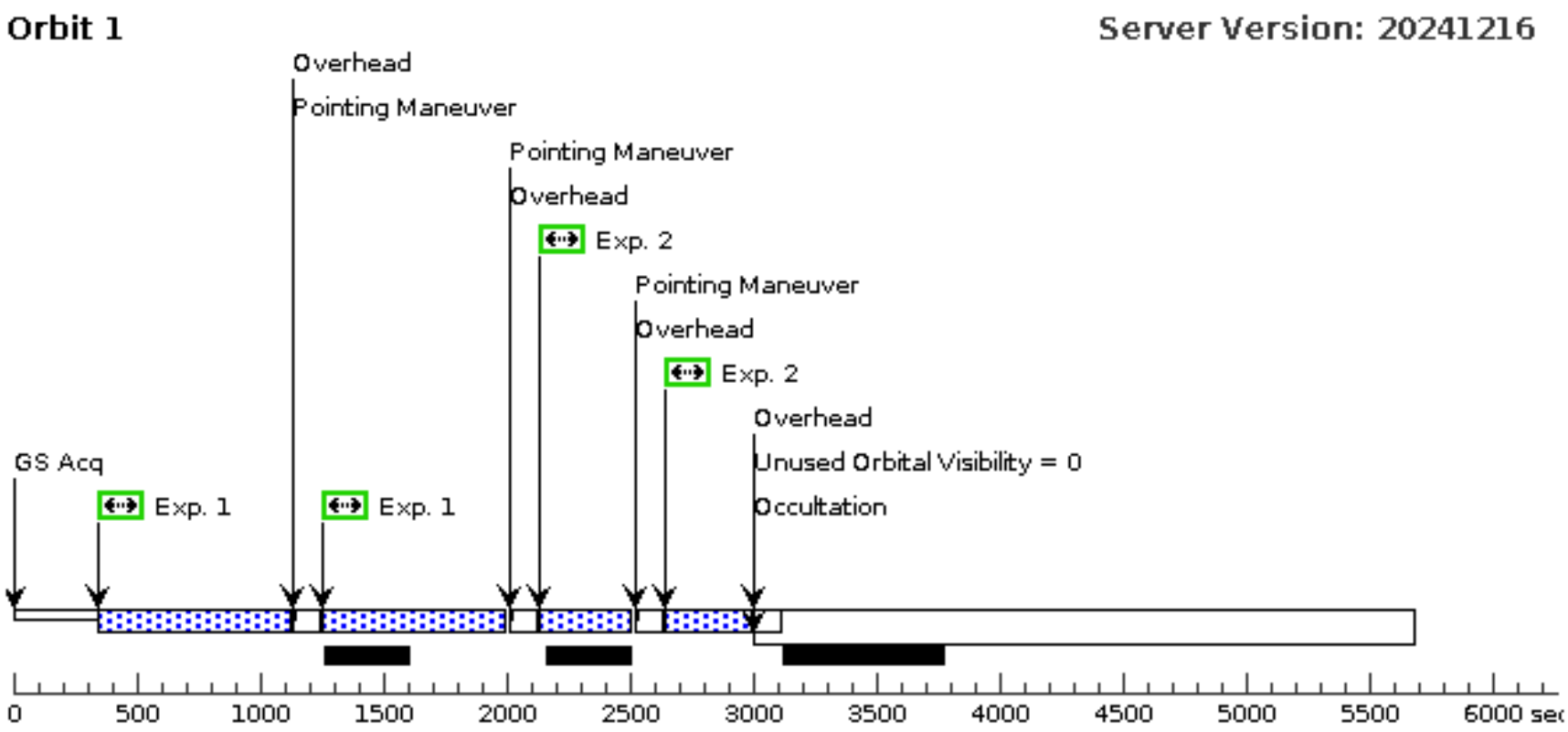
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	AT2019AALC	RA: 15 24 16.6600 (231.0694167d) Dec: +04 51 19.05 (4.85529d) Equinox: J2000		V=14.45	Reference Frame: TNS

Comments:
Category=GALAXY
Description=[SPIRAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(2) AT2019AALC	WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=12	POS TARG +0.1,+0.1	Pattern 1, Exps 1-1 in AT2019aalc Visit 3 (06) (1)	600 Secs (1492 Secs) *[==>746.0 Secs (Pattern 1)]* *[==>746.0 Secs (Pattern 2)]*	***[1]***
2	F814W	(2) AT2019AALC	WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=12		Pattern 1, Exps 2-2 in AT2019aalc Visit 3 (06) (1)	480 Secs (700 Secs) *[==>350 Secs (Pattern 1)]* *[==>350 Secs (Pattern 2)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2020vdq Visit 1 (07), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	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

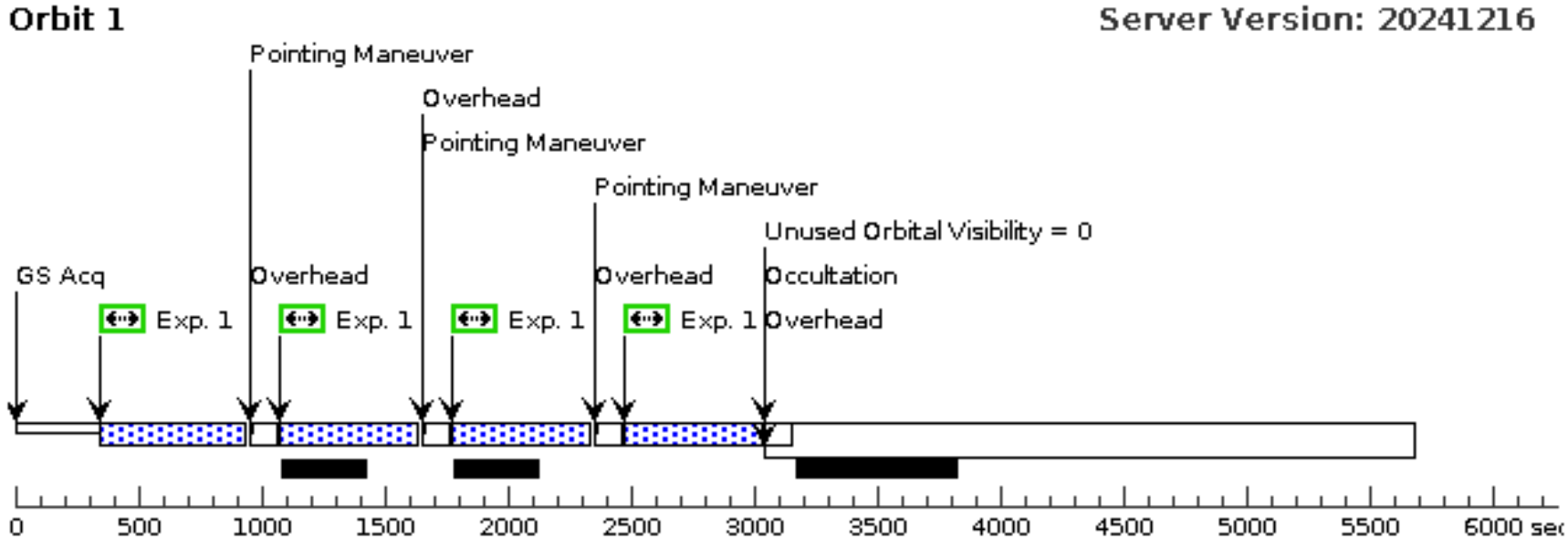
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AT-2020VDQ	RA: 10 08 53.4400 (152.2226667d) Dec: +42 43 0.23 (42.71673d) Equinox: J2000	Epoch of Position: 2000	V=18.31	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[DWARF ELLIPTICAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(3) AT-2020VDQ	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F438W	FLASH=12		Pattern 2, Exps 1-1 in AT2020vdq Visit 1 (07) (2)	1300 Secs (2256 Secs) *[==>564.0 Secs (Pattern 1)]* *[==>564.0 Secs (Pattern 2)]* *[==>564.0 Secs (Pattern 3)]* *[==>564.0 Secs (Pattern 4)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2020vdq Visit 2 (08), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

Fixed Targets

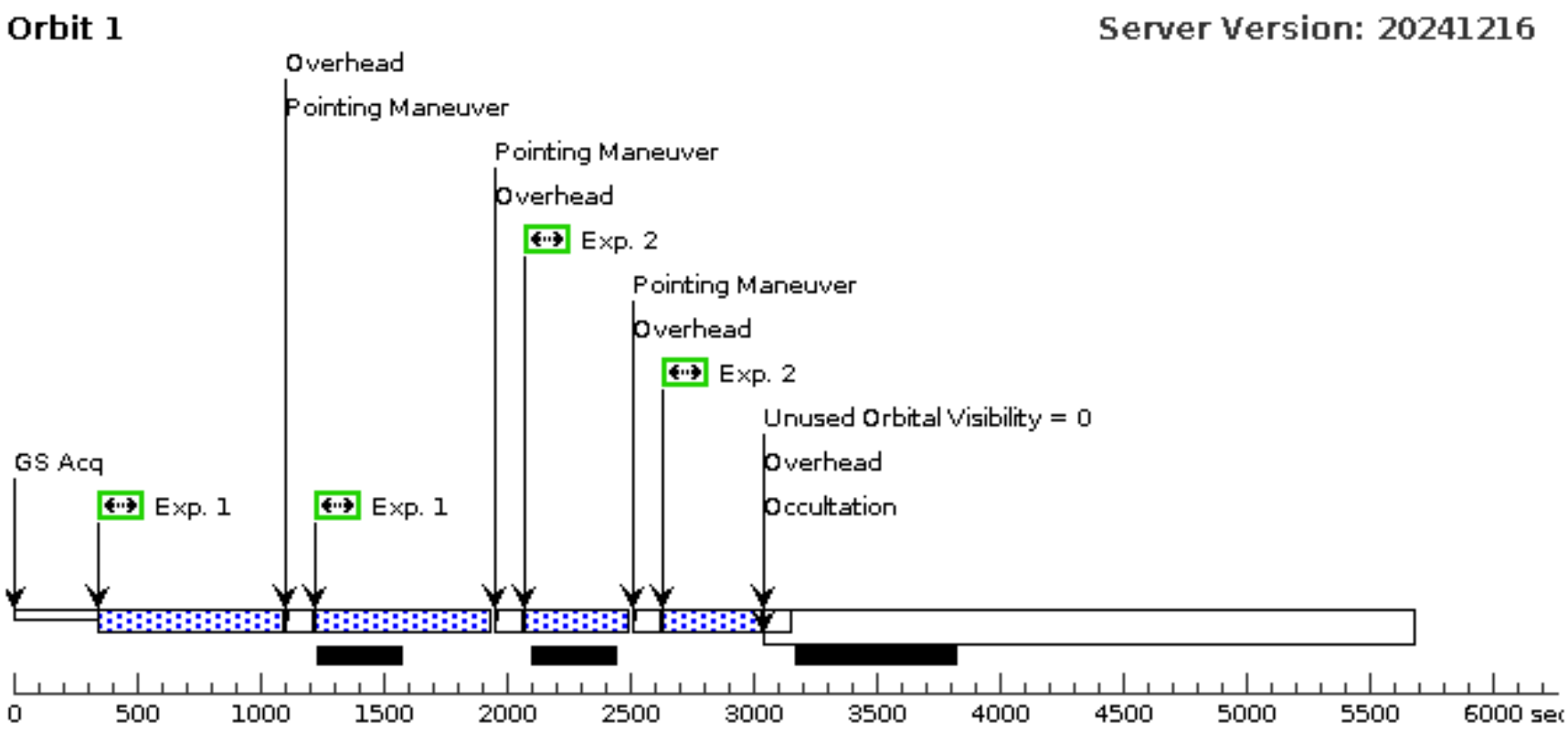
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AT-2020VDQ	RA: 10 08 53.4400 (152.2226667d) Dec: +42 43 0.23 (42.71673d) Equinox: J2000	Epoch of Position: 2000	V=18.31	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[DWARF ELLIPTICAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(3) AT-2020VDQ	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F438W	FLASH=12	POS TARG -0.1,-0.1	Pattern 1, Exps 1-1 in AT2020vdq Visit 2 (08) (1)	600 Secs (1433 Secs) *[==>716.0 Secs (Pattern 1)]* *[==>717.0 Secs (Pattern 2)]*	***[1]***
2	F625W	(3) AT-2020VDQ	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F625W	FLASH=12		Pattern 1, Exps 2-2 in AT2020vdq Visit 2 (08) (1)	430 Secs (800 Secs) *[==>400 Secs (Pattern 1)]* *[==>400 Secs (Pattern 2)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2020vdq Visit 3 (09), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first/second visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

Fixed Targets

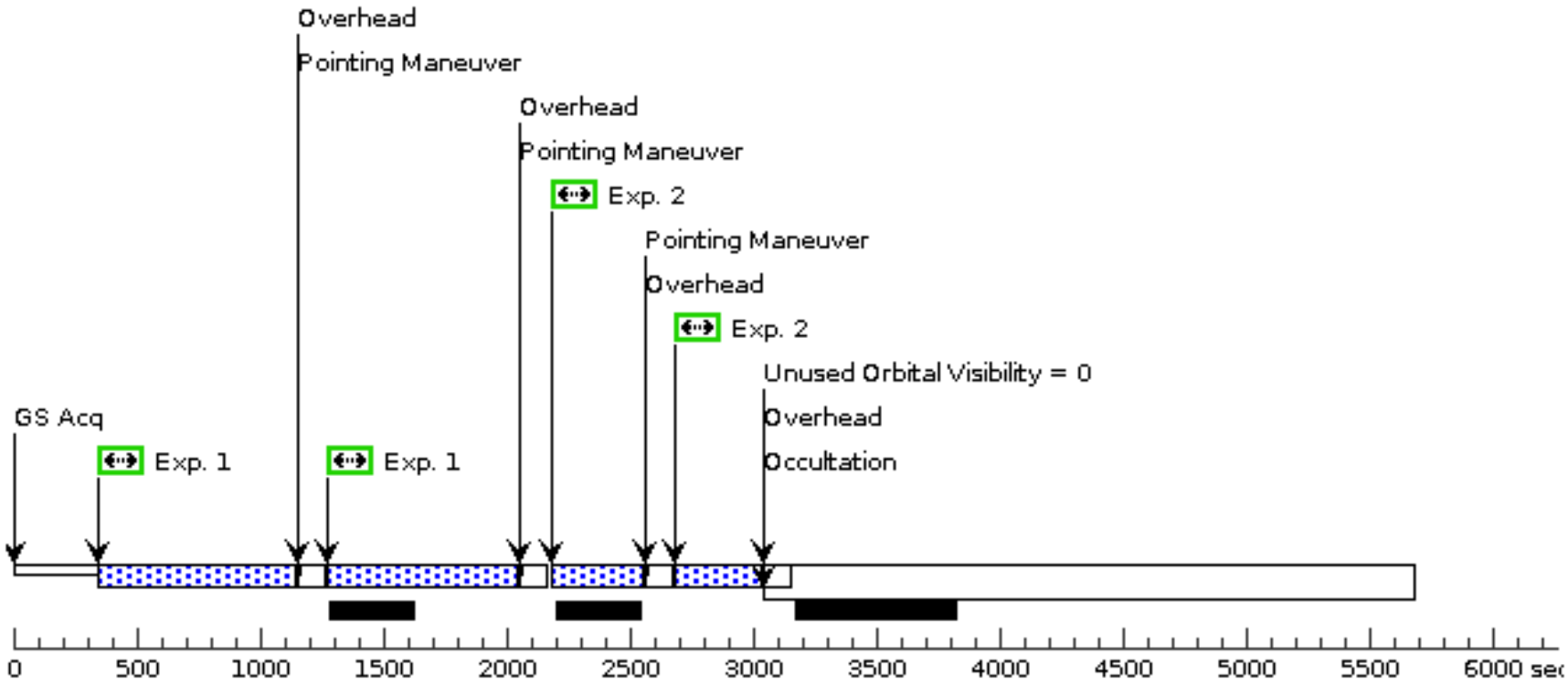
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AT-2020VDQ	RA: 10 08 53.4400 (152.2226667d) Dec: +42 43 0.23 (42.71673d) Equinox: J2000	Epoch of Position: 2000	V=18.31	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[DWARF ELLIPTICAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(3) AT-2020VDQ	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F438W	FLASH=12	POS TARG +0.1,+0.1	Pattern 1, Exps 1-1 in AT2020vdq Visit 3 (09) (1)	600 Secs (1536 Secs) *[==>768.0 Secs (Pattern 1)]* *[==>768.0 Secs (Pattern 2)]*	*[1]*
2	F814W	(3) AT-2020VDQ	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F814W	FLASH=10		Pattern 1, Exps 2-2 in AT2020vdq Visit 3 (09) (1)	480 Secs (700 Secs) *[==>350 Secs (Pattern 1)]* *[==>350 Secs (Pattern 2)]*	*[1]*

Orbit Structure



Visit

Proposal 17775, AT2022exr Visit 1 (10), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	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

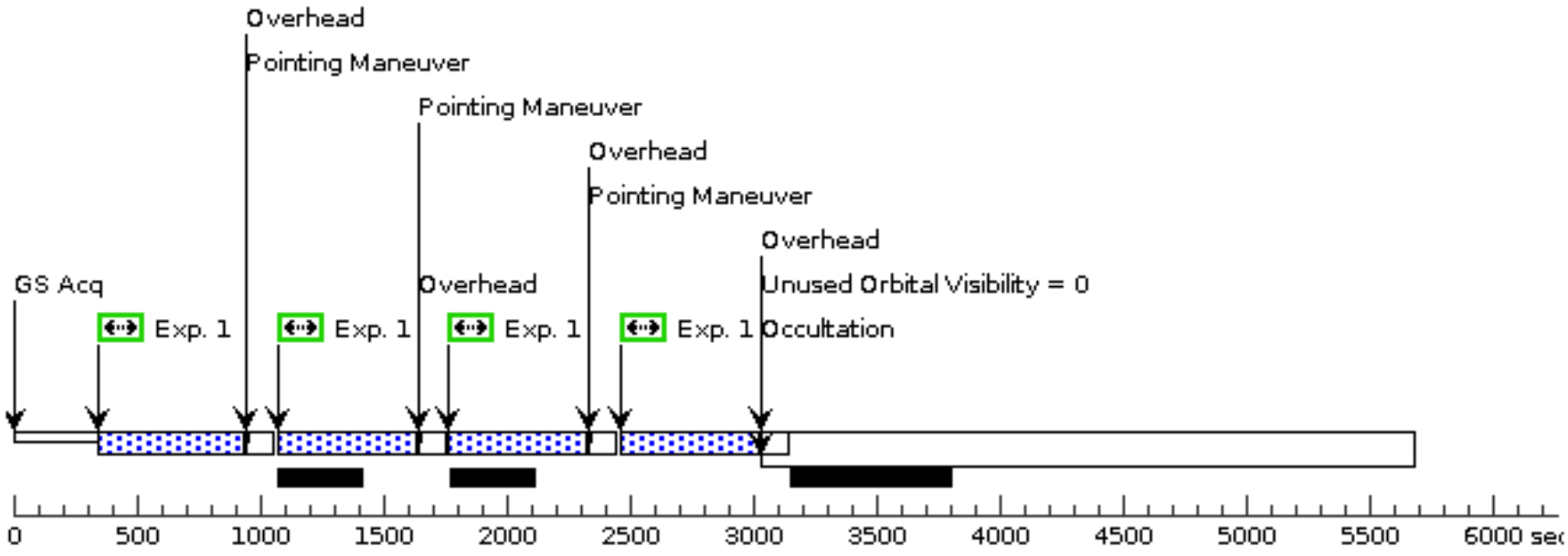
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	AT-2022EXR	RA: 17 29 50.5100 (262.4604583d) Dec: +25 50 31.92 (25.84220d) Equinox: J2000	Epoch of Position: 2000	V=17.7	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[ELLIPTICAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(4) AT-2022EXR	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F438W	FLASH=12		Pattern 2, Exps 1-1 in AT2022exr Visit 1 (10) (2)	1300 Secs (2239 Secs) *[==>560.0 Secs (Pattern 1)]* *[==>560.0 Secs (Pattern 2)]* *[==>560.0 Secs (Pattern 3)]* *[==>559.0 Secs (Pattern 4)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2022exr Visit 2 (11), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

Fixed Targets

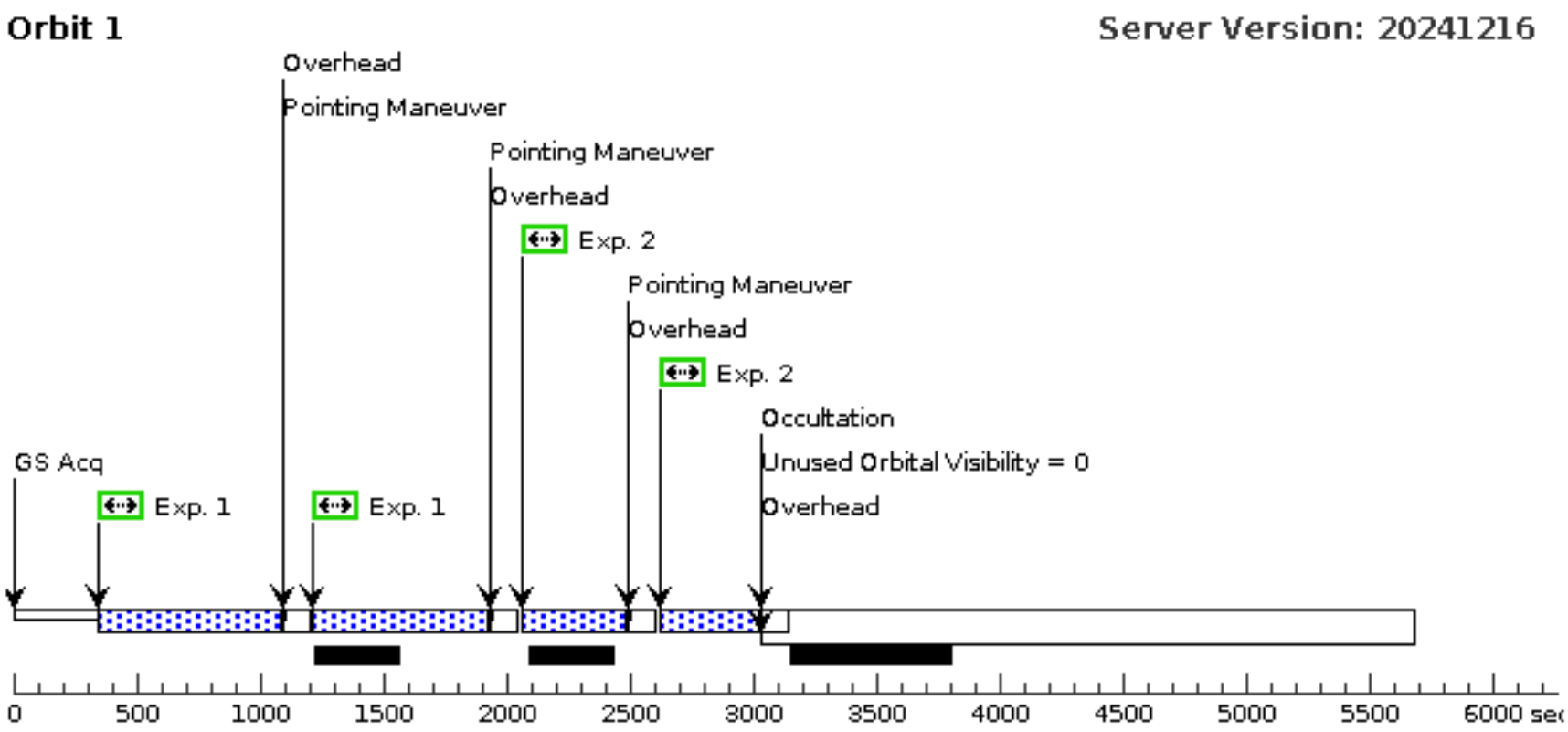
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	AT-2022EXR	RA: 17 29 50.5100 (262.4604583d) Dec: +25 50 31.92 (25.84220d) Equinox: J2000	Epoch of Position: 2000	V=17.7	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[ELLIPTICAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(4) AT-2022EXR	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F438W	FLASH=12	POS TARG -0.1,-0.1	Pattern 1, Exps 1-1 in AT2022exr Visit 2 (11) (1)	600 Secs (1416 Secs) *[==>708.0 Secs (Pattern 1)]* *[==>708.0 Secs (Pattern 2)]*	***[1]***
2	F625W	(4) AT-2022EXR	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F625W	FLASH=10		Pattern 1, Exps 2-2 in AT2022exr Visit 2 (11) (1)	430 Secs (800 Secs) *[==>400.0 Secs (Pattern 1)]* *[==>400.0 Secs (Pattern 2)]*	***[1]***

Orbit Structure



Visit

Proposal 17775, AT2020exr Visit 3 (12), implementation Sat Mar 15 00:00:18 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/UVIS

Special Requirements: (none)

Comments: POS TARG offset to avoid same F438W position as first/second visit if orientation angle the same

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1), (2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	AT-2022EXR	RA: 17 29 50.5100 (262.4604583d) Dec: +25 50 31.92 (25.84220d) Equinox: J2000	Epoch of Position: 2000	V=17.7	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[ELLIPTICAL]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F438W	(4) AT-2022EXR	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F438W	FLASH=12	POS TARG +0.1,+0.1	Pattern 1, Exps 1-1 in AT2020exr Visit 3 (12) (1)	600 Secs (1519 Secs) *[==>760.0 Secs (Pattern 1)]* *[==>759.0 Secs (Pattern 2)]*	***[1]***
2	F814W	(4) AT-2022EXR	WFC3/UVIS, ACCUM, UVIS2-C1K1C-CTE	F814W	FLASH=10		Pattern 1, Exps 2-2 in AT2020exr Visit 3 (12) (1)	480 Secs (700 Secs) *[==>350.0 Secs (Pattern 1)]* *[==>350.0 Secs (Pattern 2)]*	***[1]***

Orbit Structure