17581 - The Last Gasp of the TDE Wind

Cycle: 31, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*
Dr. Walter Peter Maksym III (PI) (Contact)	**NASA Marshall Space Flight Center**
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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) TDE-TOO-1 WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	30-Aug-2023 18:00:21.0	yes
02	(1) TDE-TOO-1 WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:23.0	yes
03	(1) TDE-TOO-1	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:24.0	yes
04	(1) TDE-TOO-1	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:25.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
05	(2) TDE-TOO-2 WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	30-Aug-2023 18:00:27.0	yes
06	(2) TDE-TOO-2 WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:29.0	yes
07	(2) TDE-TOO-2	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:30.0	yes
08	(2) TDE-TOO-2	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:31.0	yes
09	(7) NAME-AT-2021EHB WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	30-Aug-2023 18:00:32.0	yes
10	(7) NAME-AT-2021EHB WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:34.0	yes
11	(3) TDE-TOO-3	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:35.0	yes
12	(3) TDE-TOO-3	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:36.0	yes
13	(8) AT2022DSB	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:37.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
14	(8) AT2022DSB	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:38.0	yes
15	(8) AT2022DSB	STIS/CCD STIS/NUV-MAMA	3	30-Aug-2023 18:00:39.0	yes
16	(8) AT2022DSB	STIS/CCD STIS/FUV-MAMA	3	30-Aug-2023 18:00:40.0	yes
21	(4) TDE-TOO-4	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:41.0	yes
22	(4) TDE-TOO-4	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:42.0	yes
17	(5) TDE-TOO-5 WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	2	30-Aug-2023 18:00:43.0	yes
18	(5) TDE-TOO-5 WAVE	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:45.0	yes
19	(5) TDE-TOO-5	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:46.0	yes
20	(5) TDE-TOO-5	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:47.0	yes
23	(9) AT2022HVP	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:49.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
24	(9) AT2022HVP	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	4	30-Aug-2023 18:00:50.0	yes
25	(9) AT2022HVP	STIS/CCD STIS/NUV-MAMA	3	30-Aug-2023 18:00:51.0	yes
26	(9) AT2022HVP	STIS/CCD STIS/FUV-MAMA	3	30-Aug-2023 18:00:52.0	yes

92 Total Orbits Used

ABSTRACT

When a star is tidally disrupted by a supermassive black hole, the rapid accretion of the stellar debris may drive super-Eddington winds which. After a period of accretion rate decay, we expect the winds to "shut off", drastically reducing the production of broad line emission and changing the evolution of the band-specific light curve across the spectrum. Spectroscopic monitoring of new tidal disruption events (TDEs) in the ultraviolet is the best place to observe this transition due to the persistence of a windless disk continuum. the lack of stellar contamination, and the wealth of high-ionization diagnostic lines that probe the relatively small TDE accretion structure. We propose to observe 5 TDEs over 3 epochs with monitoring UV spectroscopy and complementary X-ray and optical observations, in order to observe this transition and investigate its connection to the evolution of the accretion flow. Beyond this primary goal, these observations will also provide an important legacy contribution of HST towards understanding TDE physics in the UV.

OBSERVING DESCRIPTION

This program aims to spectroscopically monitor 5 tidal disruption events (TDEs) as TOOs over the course of their Eddington timescales. Like active galactic nuclei, TDEs frequently display broad spectral lines that are likely formed by emission from ionized clouds circulating in a hot accretion-driven outflowing wind. If this wind is powered by the accretion of stellar debris from the tidal disruption, then as the accretion rate declines over time (0.5-2 years), the wind should die down and the broad lines should disappear. Ancillary science depends upon measurement of the broad line strengths and kinematic profiles, and (much less challenging) the SED profile. TIME-TAG observations may be possible for a sufficiently bright TDE, which would could allow intra-observation variability studies (e.g. reverberation mapping).

In terms of program strategy, this translates into monitoring each TDE over ~2 years, with a cadence of ~1 year between each of 3 epochs. We will obtain STIS FUV (G140L) and NUV (G230L) MAMA spectra using the 0.2" slit for each target in each epoch. A "typical" number of orbits is 2/2/3 for each grating in epochs #1/#2/#3, totaling 4/4/6 orbits for each epoch.

In practice, the cadence depends upon the black hole mass (which can be estimated from pre-flare observations of the host galaxy) and the trajectory of the disrupted star (which may be imprinted in the light curve photometry). As such, each epoch #2 will be "on hold" until we have had a chance to confirm and revise the cadence strategy.

*Note, 2021 July 23: As of this writing, we do not expect any target's epoch #3 to fall within Cycle 29. This would require some combination of early triggering and short Eddington timescale (e.g. a relatively massive black hole or atypically close pericenter). We have therefore not yet designed any epoch #3 visits.**

*Note, 2021 July 23: Due to server errors for the Very Bright TDE epoch #2 setups, as a workaround we have turned off auto-wavecals and re-added them manually**

Since neither the brightness nor the light cuve evolution is known, we have devised sample visit strategies for multiple different combinatons of the two:

We assign a different cadence to each target, with plausible example timescales between 0.41 years and 1.25 years. For each target we devise two different alternate setups, each covering epochs #1 and #2:

1) The first setup assumes a very bright target which requires a neutral density filter for acquisition, and therefore a longer acquisition time. For a very bright target, TIME-TAG observations may be possible, and fewer orbits may be efficiently used in epoch #1 (only one orbit per grating, possibly allowing additional targets or improved late-time epochs).

2) The second setup assumes a moderately bright target (fainter, but still bright enough for UV spectroscopy) and uses the 50CCD filter with a reduced acquisition exposure. The second setup does not use TIME-TAG observations and assumes 2 orbits per grating in epoch #1 and epoch #2.

We will refine these setups before triggering epoch #1. Epoch #2 is on hold to refine the setup (including cadence) after triggering epoch #1. In any

case, these are long baseline observations: the cadence is unlikely to be <months in any event.

Visit

Proposal 17581, Very bright TDE epoch #1 setup - 1 yr cadence (01) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is sufficiently bright that a neutral density filter is necessary for acquisition, and that TIME-TAG mode will be beneficial

Since this has 1 year cadence, it is followed by visit (02) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is very bright.

This setup will be triggered for a TDE which is bright enough to require a neutral density filter for acquisiton, and that TIME-TAG mode will be beneficial. In such a case, one orbit per grating may be sufficient for Epoch #1. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

The buffer times may also need to be increased.

Diagnostics

(Very bright TDE epoch #1 setup - 1 yr cadence (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #1 setup - 1 yr cadence (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

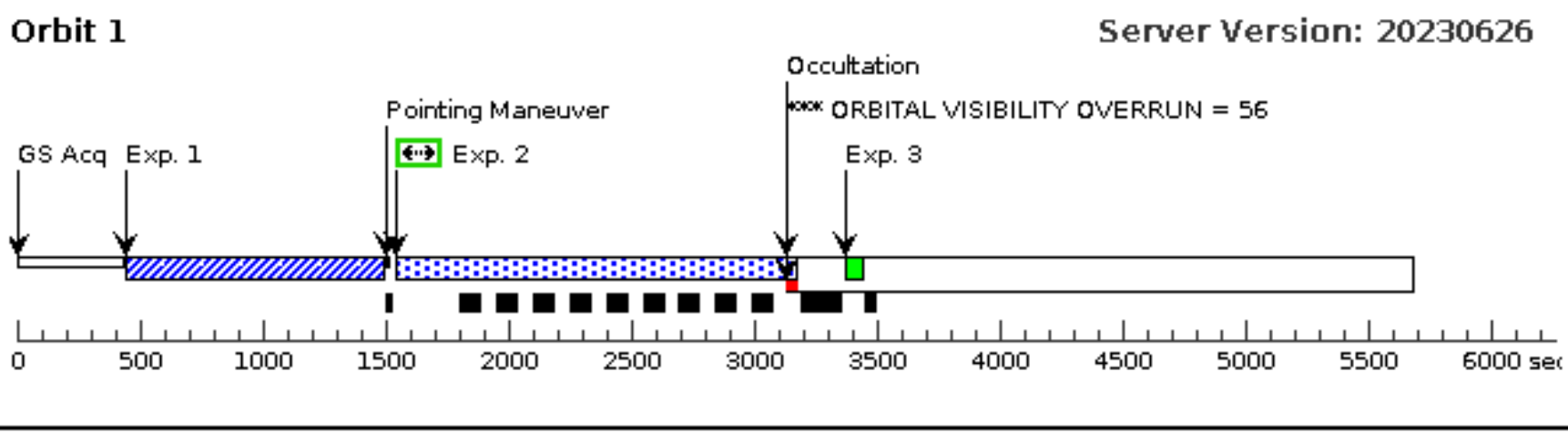
#	Name	Criteria	Description
(1)	TDE-TOO-1	UV-bright Tidal Disruption Event	ACCRETION DISK BLR NUCLEUS WIND

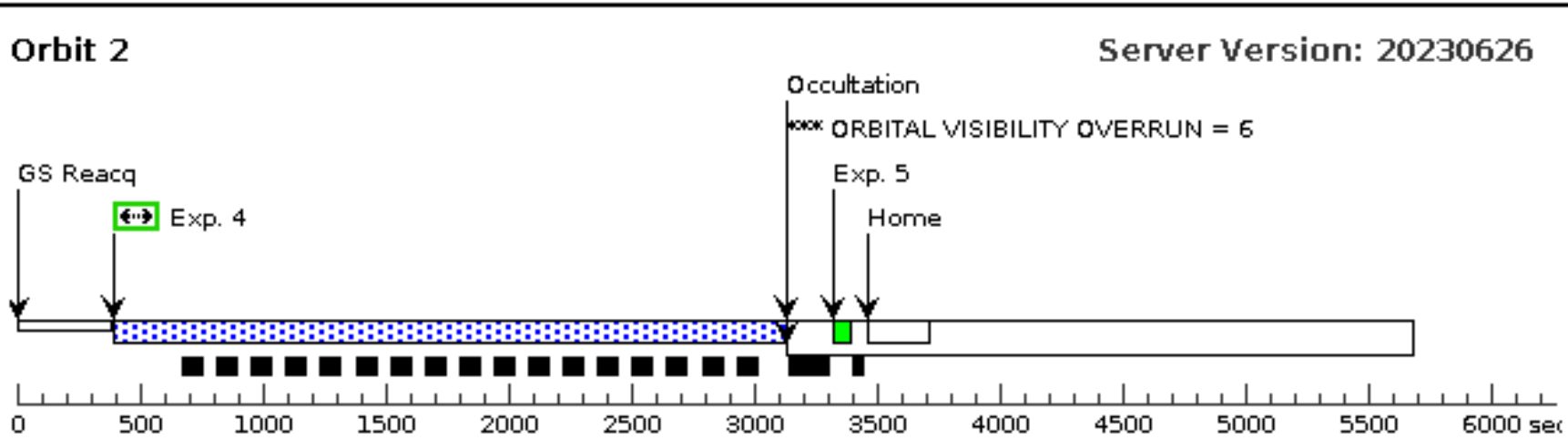
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Very bright TDE acquisition (STIS.ta.152 3033)	(1) TDE-TOO-1	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			180 Secs (180 Secs) *[==>]*	***[1]***
2	Very bright TDE NUV spectrum (STIS.sp.15 23057)	(1) TDE-TOO-1	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148; WAVECAL=NO			1300 Secs (1502 Secs) *[==>1502.0 Secs]*	***[1]***
3	Wavecal	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[1]***
4	Very bright TDE FUV spectrum (STIS.sp.15 23058)	(1) TDE-TOO-1	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			1300 Secs (2581 Secs) *[==>2581.0 Secs]*	***[2]***
5	Wavecal	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 17581, Very bright TDE epoch #2 setup - 1 yr cadence (02) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 01 BY 320 D TO 410 D; ON HOLD

Comments: This observation assumes the TDE is sufficiently bright that a neutral density filter is necessary for acquisition, and that TIME-TAG mode will be beneficial.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Timing requirements may need to be revised.

Buffer times may need to be increased.

Diagnostics

(Very bright TDE epoch #2 setup - 1 yr cadence (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

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(Very bright TDE epoch #2 setup - 1 yr cadence (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 1 yr cadence (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 1 yr cadence (02)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Generic Targets

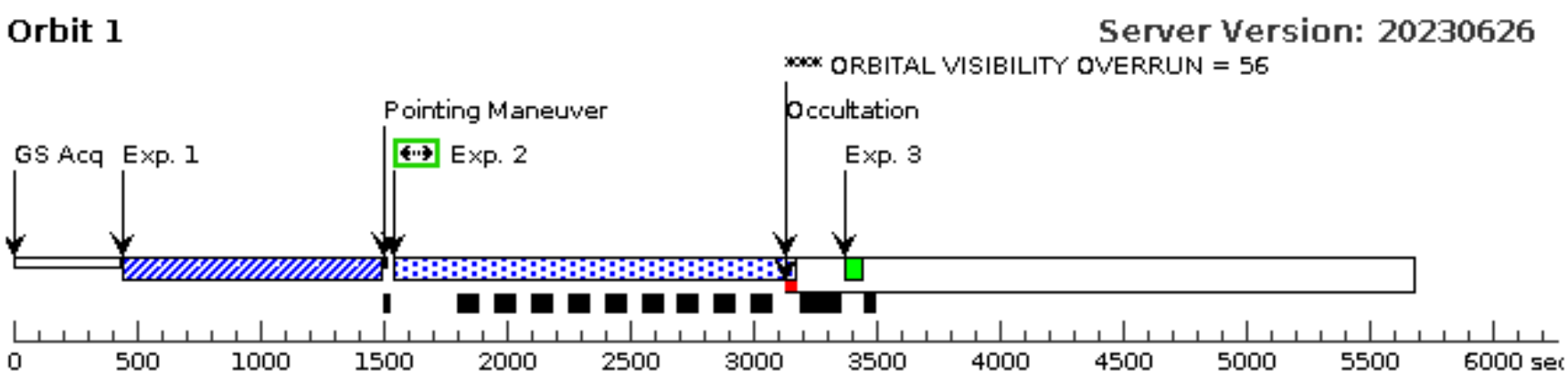
#	Name	Criteria	Description
(1)	TDE-TOO-1	UV-bright Tidal Disruption Event	ACCRETION DISK
			BLR
			NUCLEUS
			WIND

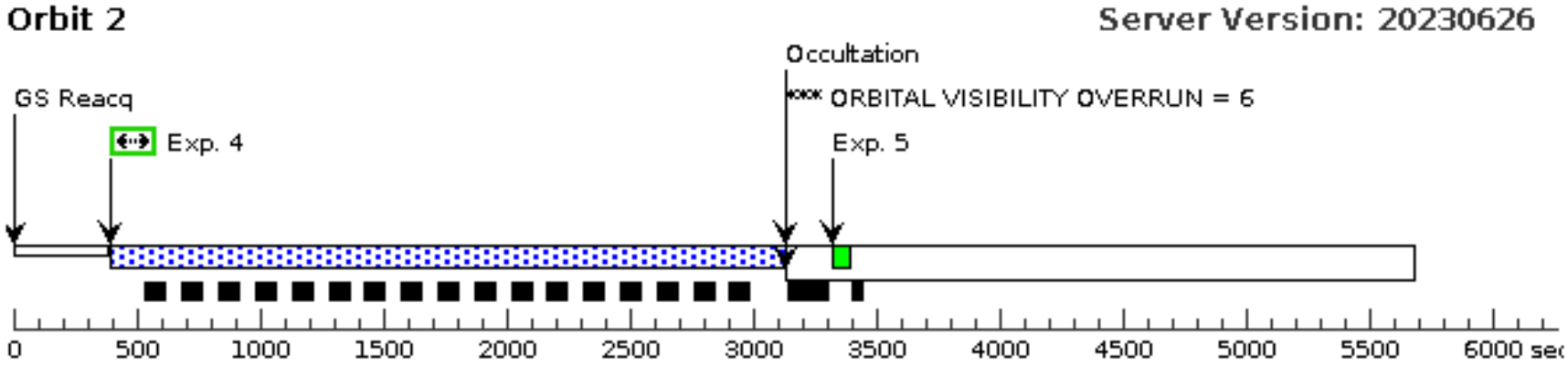
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

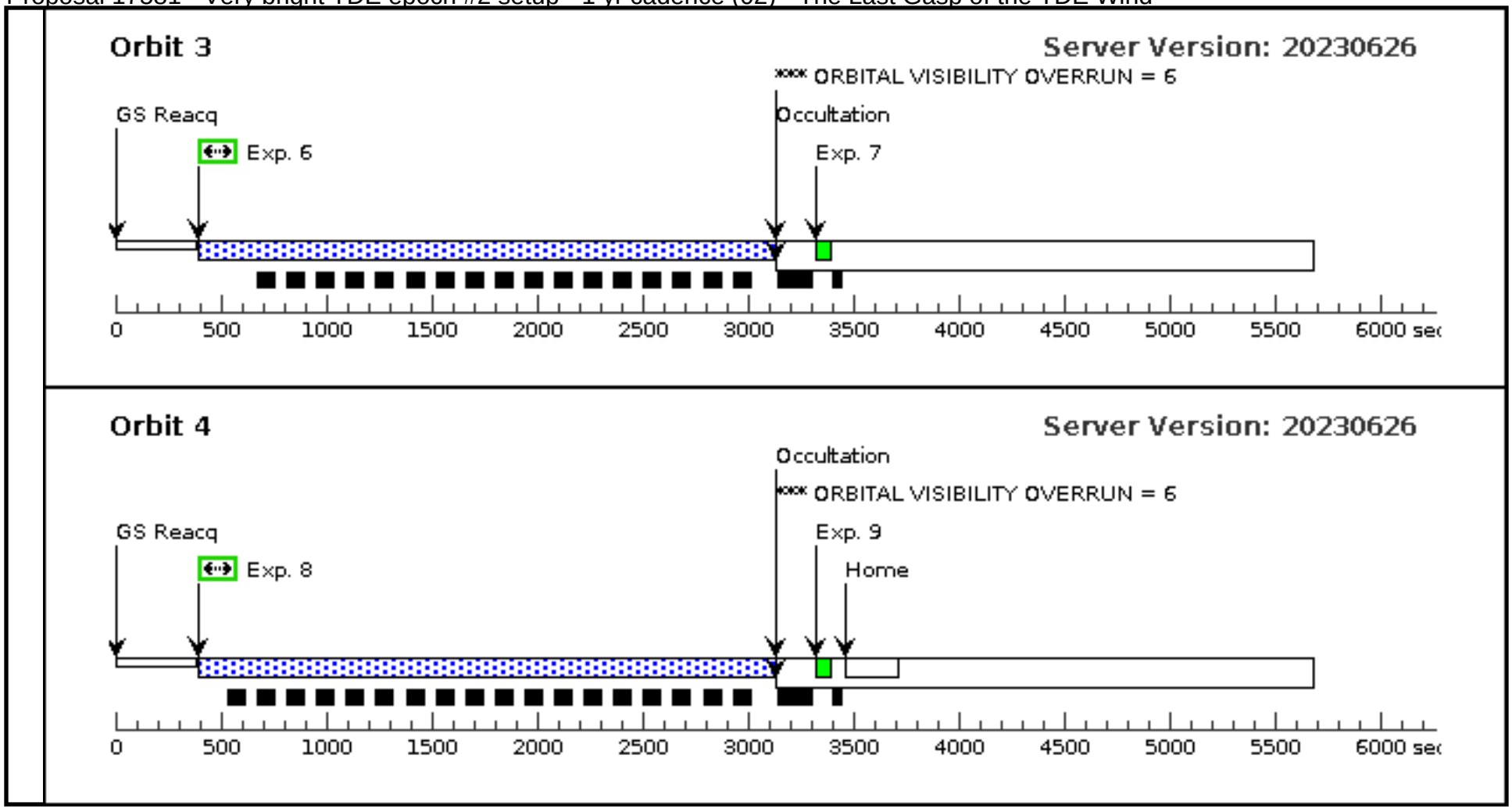
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Very bright TDE acquisition (STIS.ta.1523033)	(1) TDE-TOO-1	STIS/CCD, ACQ, F25ND3	MIRROR	DIFFUSE-CENTER=FLUX-CENTROID; ACQTYPE=DIFFUSE; CHECKBOX=13			180 Secs (180 Secs) *[==>]*	***[1]***
2	Very bright TDE NUV spectrum (STIS.sp.1523057)	(1) TDE-TOO-1	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148; WAVECAL=NO			1300 Secs (1502 Secs) *[==>1502.0 Secs]*	***[1]***
3	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[1]***
4	Very bright TDE NUV spectrum (STIS.sp.1523057)	(1) TDE-TOO-1	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148			2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
5	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[2]***
6	Very bright TDE FUV spectrum (STIS.sp.1523058)	(1) TDE-TOO-1	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			2500 Secs (2581 Secs) *[==>2581.0 Secs]*	***[3]***
7	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[3]***
8	Very bright TDE FUV spectrum (STIS.sp.1523058)	(1) TDE-TOO-1	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***
9	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[4]***

Orbit Structure



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Exp. 8
Exp. 9
Home
0
500
1000
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2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #1 setup - 1 yr cadence (03) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is NOT bright enough for a strong filter or TIME-TAG mode.

Since this has 1 year cadence, it is followed by visit (04) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is less bright.

This setup will be triggered for a less-bright TDE which does not warrant a strong acquisition filter or TIME-TAG mode. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

Acquisition time may need to be modified.

Diagnostics

(Moderately bright TDE epoch #1 setup - 1 yr cadence (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 1 yr cadence (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 1 yr cadence (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 1 yr cadence (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

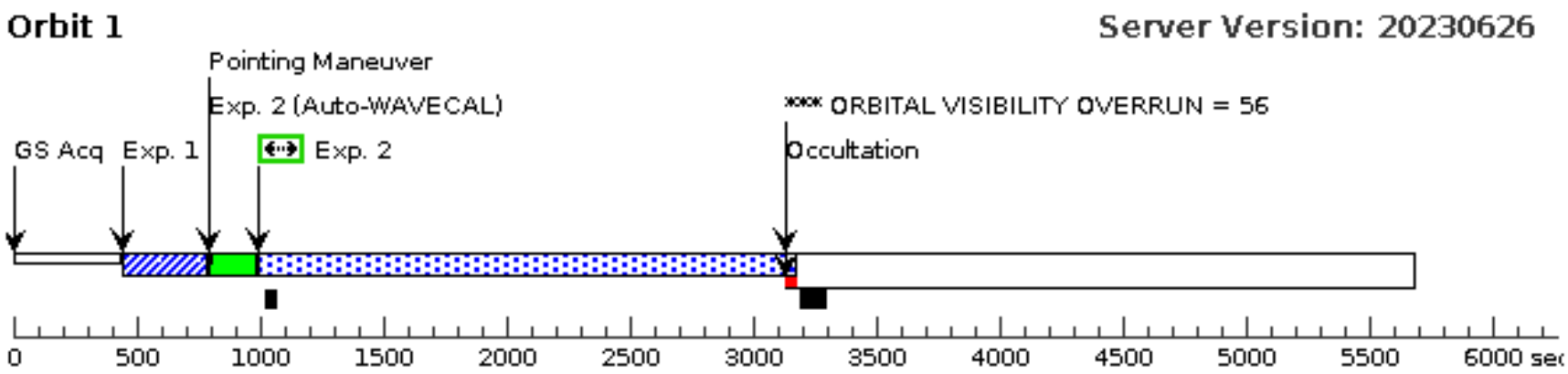
#	Name	Criteria	Description
(1)	TDE-TOO-1	UV-bright Tidal Disruption Event	ACCRETION DISK
			BLR
			NUCLEUS
			WIND

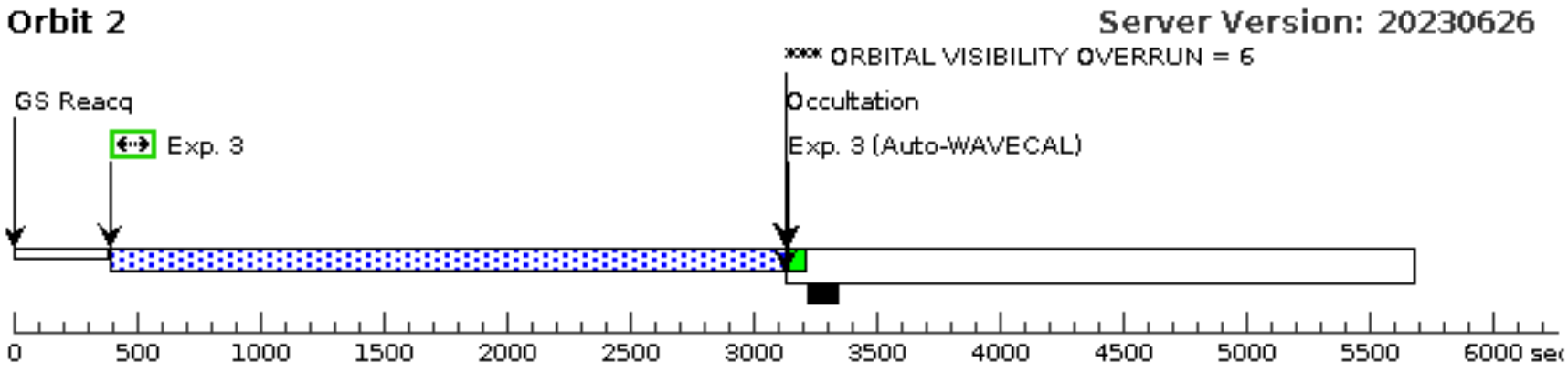
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

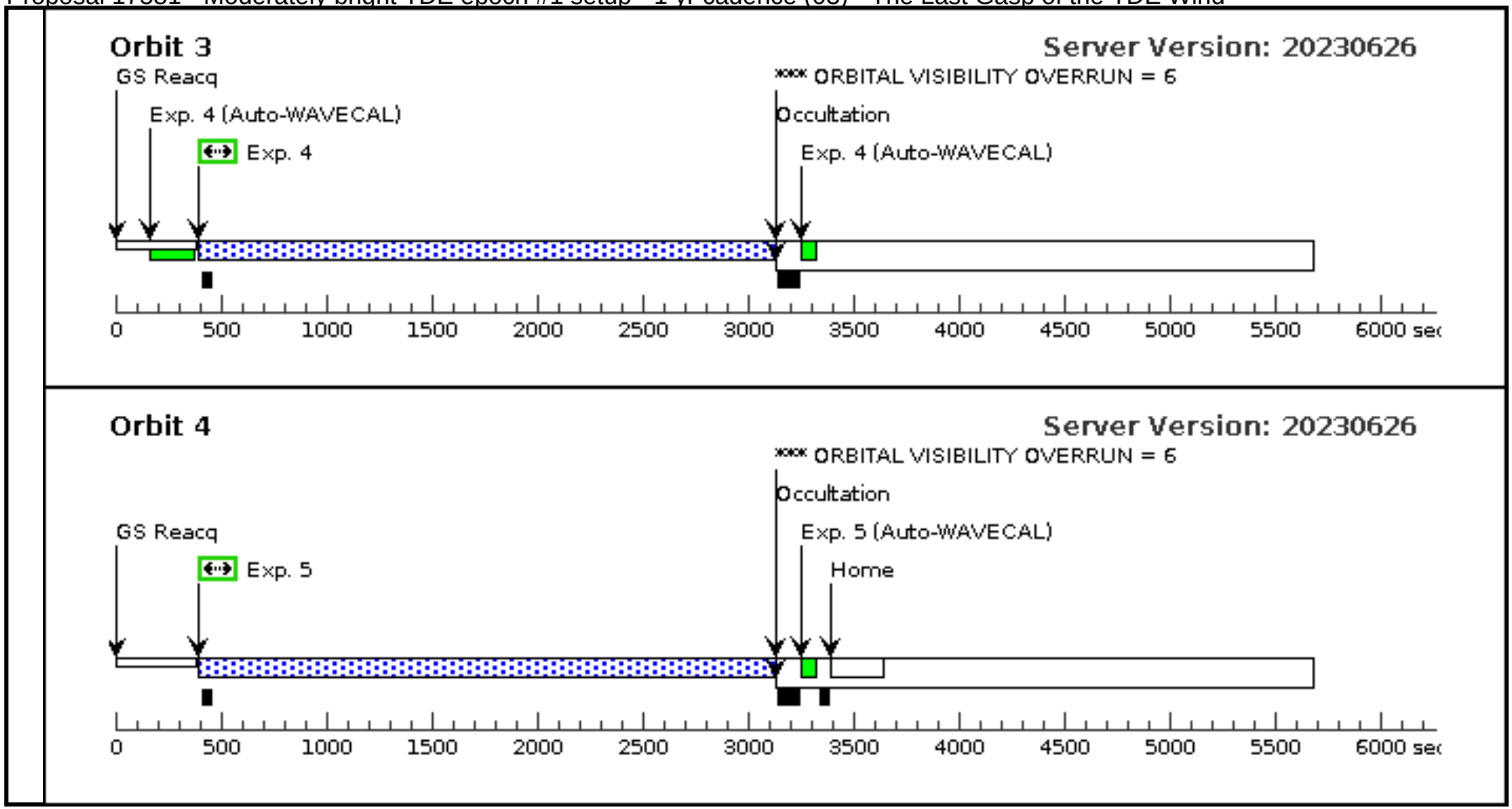
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(1) TDE-TOO-1	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(1) TDE-TOO-1	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(1) TDE-TOO-1	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(1) TDE-TOO-1	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1300 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(1) TDE-TOO-1	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure



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6000 sec
Orbit 4
Server Version: 20230626
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Occultation
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
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500
1000
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2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #2 setup - 1 yr cadence (04) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 03 BY 320 D TO 410 D; ON HOLD

Comments: This observation assumes the TDE is NOT sufficiently bright for a strong filter or TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Acquisition time and timing requirements may need to be revised.

Diagnostics

(Moderately bright TDE epoch #2 setup - 1 yr cadence (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 1 yr cadence (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 1 yr cadence (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 1 yr cadence (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

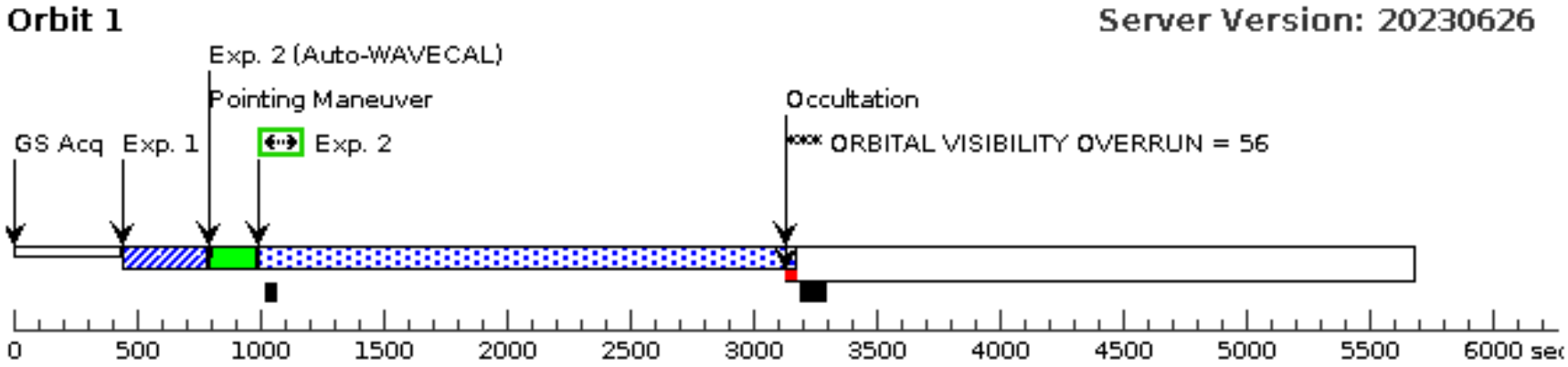
#	Name	Criteria	Description
(1)	TDE-TOO-1	UV-bright Tidal Disruption Event	ACCRETION DISK BLR NUCLEUS WIND

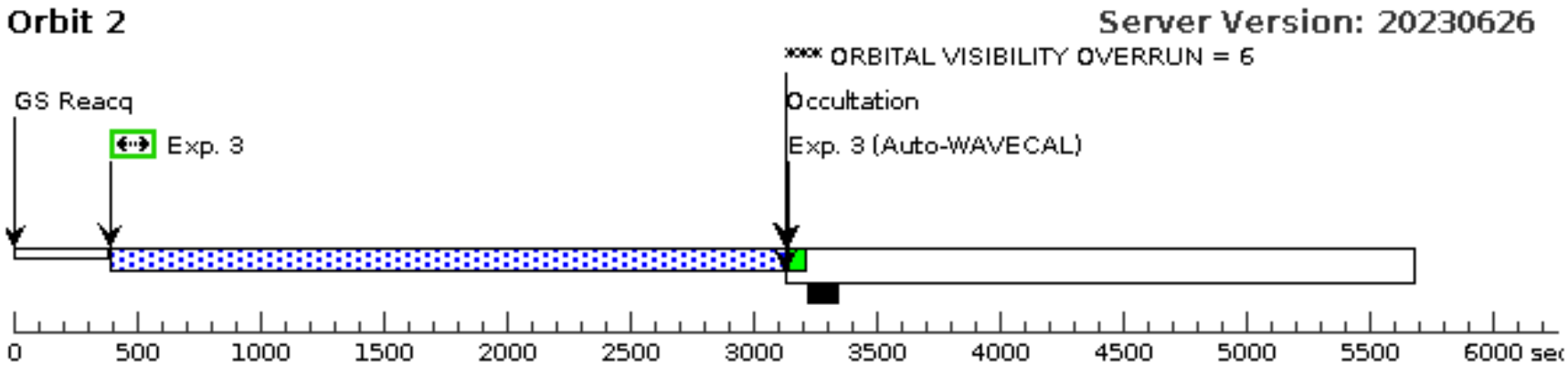
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

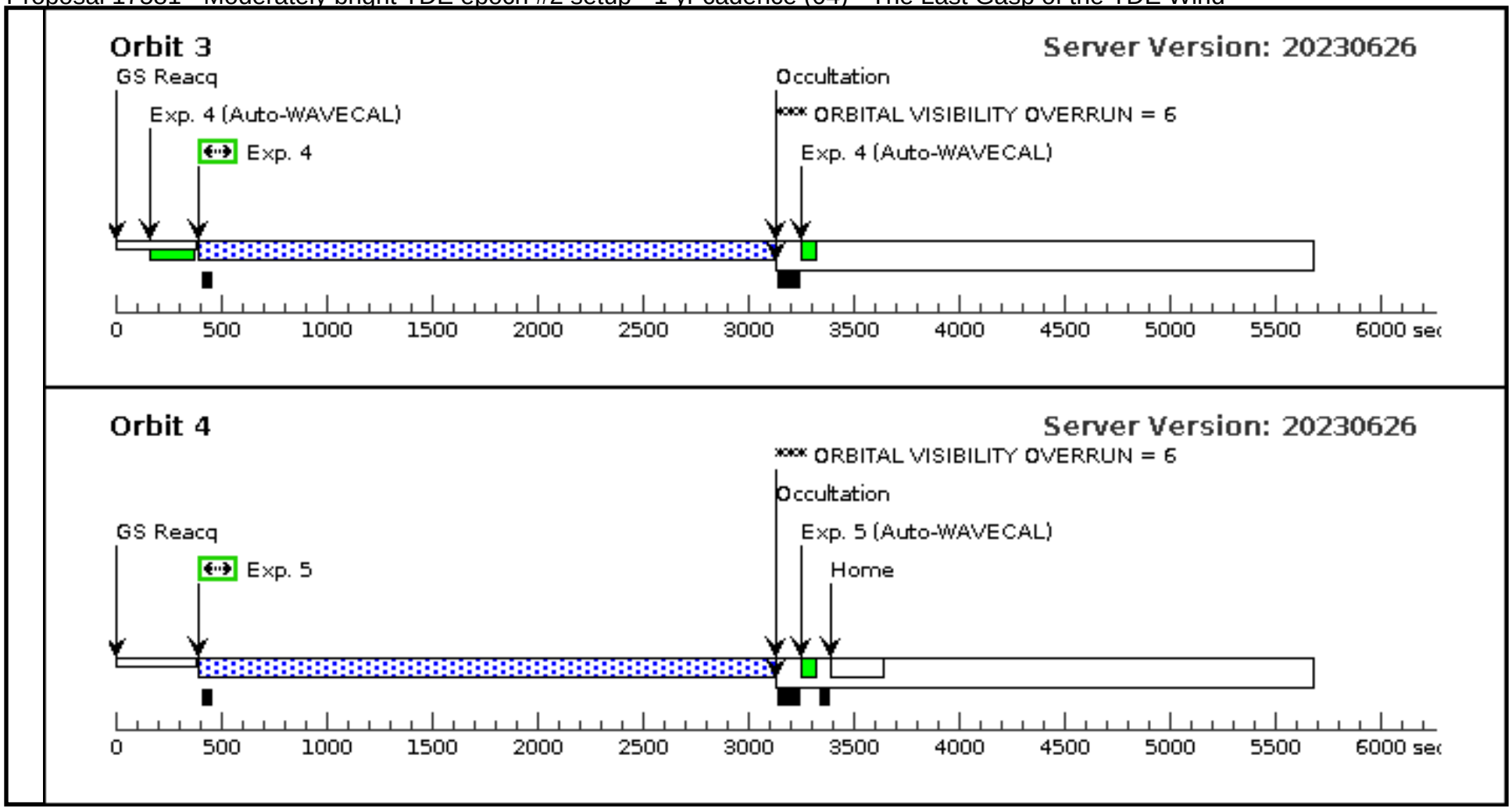
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(1) TDE-TOO-1	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(1) TDE-TOO-1	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(1) TDE-TOO-1	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(1) TDE-TOO-1	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(1) TDE-TOO-1	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure



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Server Version: 20230626
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Occultation
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Exp. 4 (Auto-WAVECAL)
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500
1000
1500
2000
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3500
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4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 6
Occultation
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
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5500
6000 sec

Visit

Proposal 17581, Very bright TDE epoch #1 setup - 1.25 yr cadence (05) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is sufficiently bright that a neutral density filter is necessary for acquisition, and that TIME-TAG mode will be beneficial

Since this has 1.25 year cadence, it is followed by visit (06) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is very bright.

This setup will be triggered for a TDE which is bright enough to require a neutral density filter for acquisiton, and that TIME-TAG mode will be beneficial. In such a case, one orbit per grating may be sufficient for Epoch #1. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

The buffer times may also need to be increased.

Diagnostics

(Very bright TDE epoch #1 setup - 1.25 yr cadence (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #1 setup - 1.25 yr cadence (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

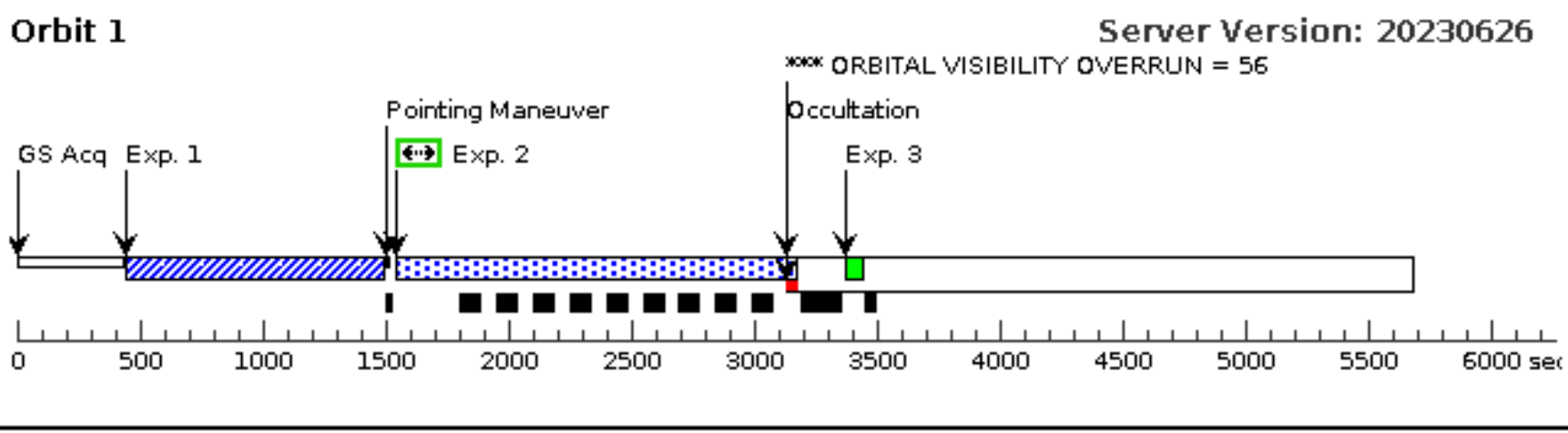
#	Name	Criteria	Description
(2)	TDE-TOO-2	UV-bright Tidal Disruption Event	ACCRETION DISK BLR NUCLEUS WIND

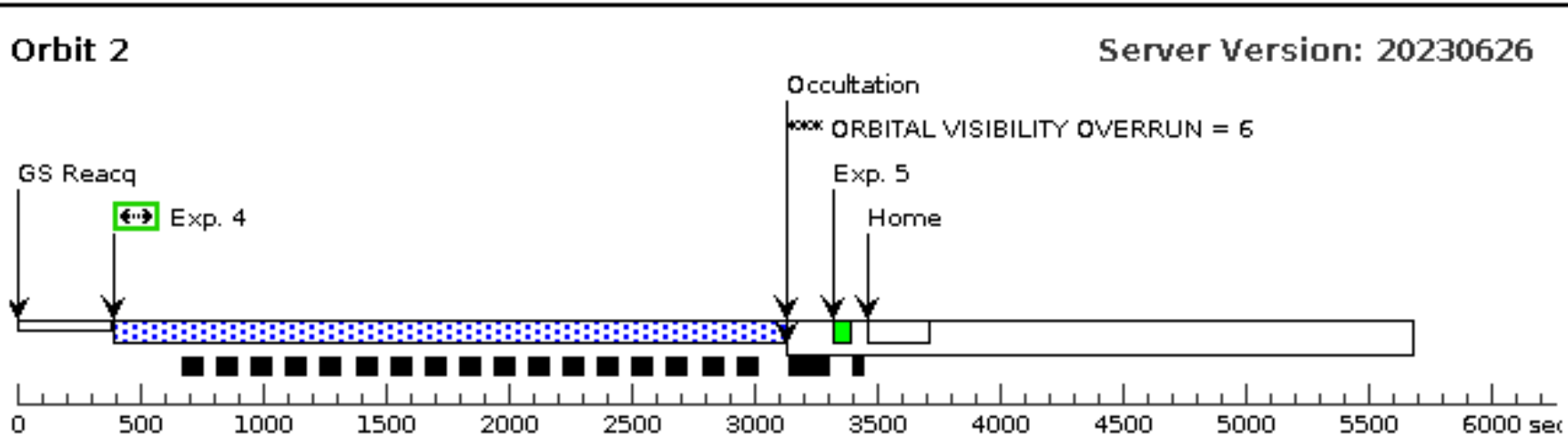
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Very bright TDE acquisition (STIS.ta.1523033)	(2) TDE-TOO-2	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			180 Secs (180 Secs) *[==>]*	***[1]***
2	Very bright TDE NUV spectrum (STIS.sp.1523057)	(2) TDE-TOO-2	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148; WAVECAL=NO			1300 Secs (1502 Secs) *[==>1502.0 Secs]*	***[1]***
3	Wavecal	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[1]***
4	Very bright TDE FUV spectrum (STIS.sp.1523058)	(2) TDE-TOO-2	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			1300 Secs (2581 Secs) *[==>2581.0 Secs]*	***[2]***
5	Wavecal	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 17581, Very bright TDE epoch #2 setup - 1.25 yr cadence (06) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 05 BY 399 D TO 513 D; ON HOLD

Comments: This observation assumes the TDE is sufficiently bright that a neutral density filter is necessary for acquisition, and that TIME-TAG mode will be beneficial.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Timing requirements may need to be revised.

Buffer times may need to be increased.

Diagnostics

(Very bright TDE epoch #2 setup - 1.25 yr cadence (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 1.25 yr cadence (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 1.25 yr cadence (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 1.25 yr cadence (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 1.25 yr cadence (06)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Generic Targets

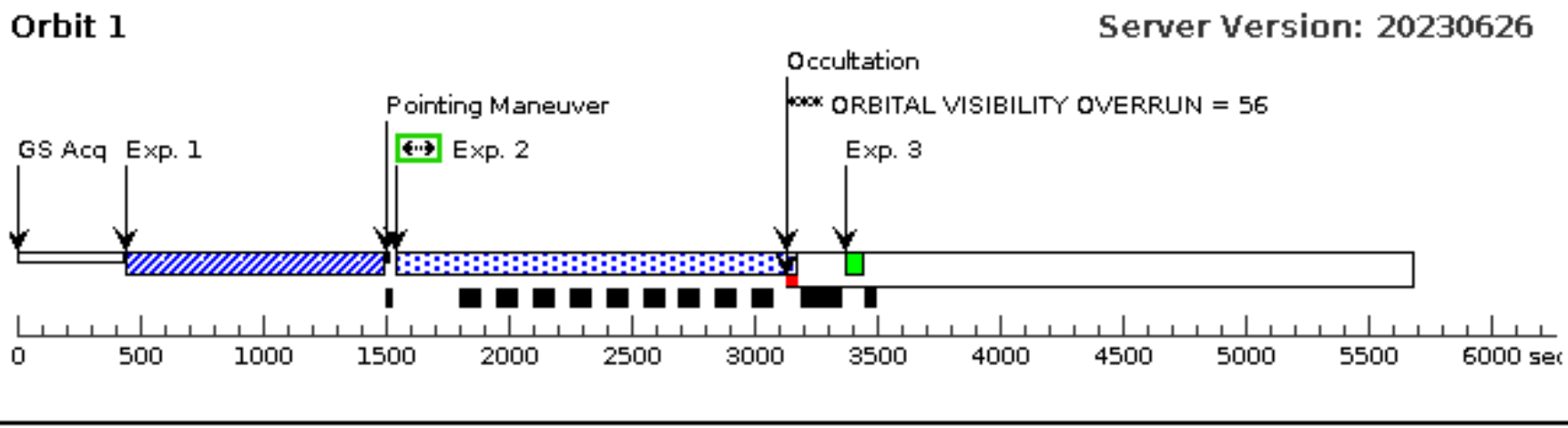
#	Name	Criteria	Description
(2)	TDE-TOO-2	UV-bright Tidal Disruption Event	ACCRETION DISK
			BLR
			NUCLEUS
			WIND

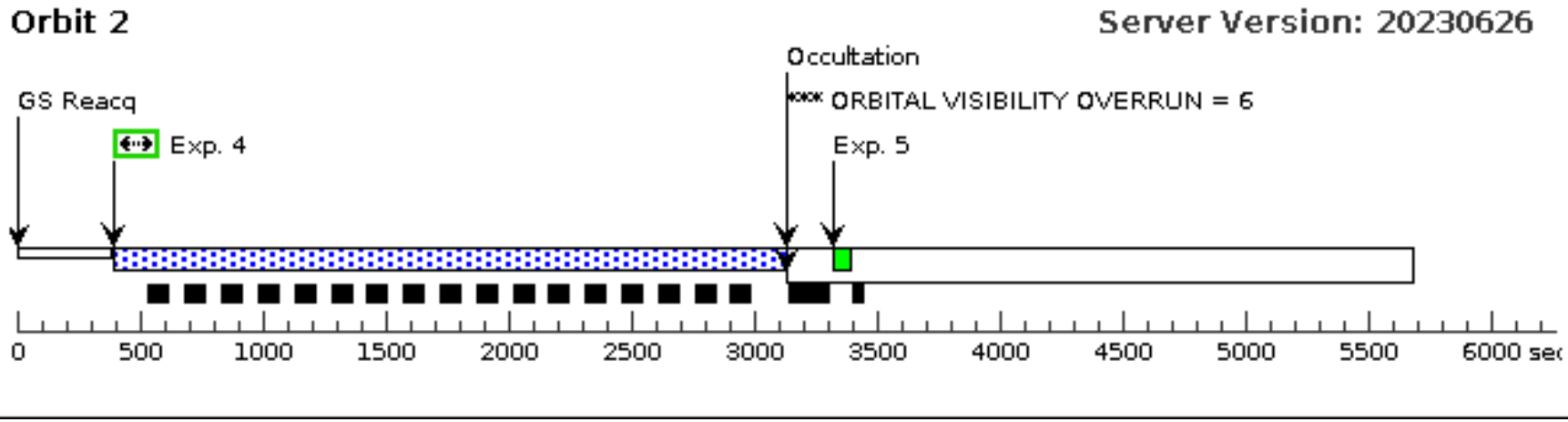
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

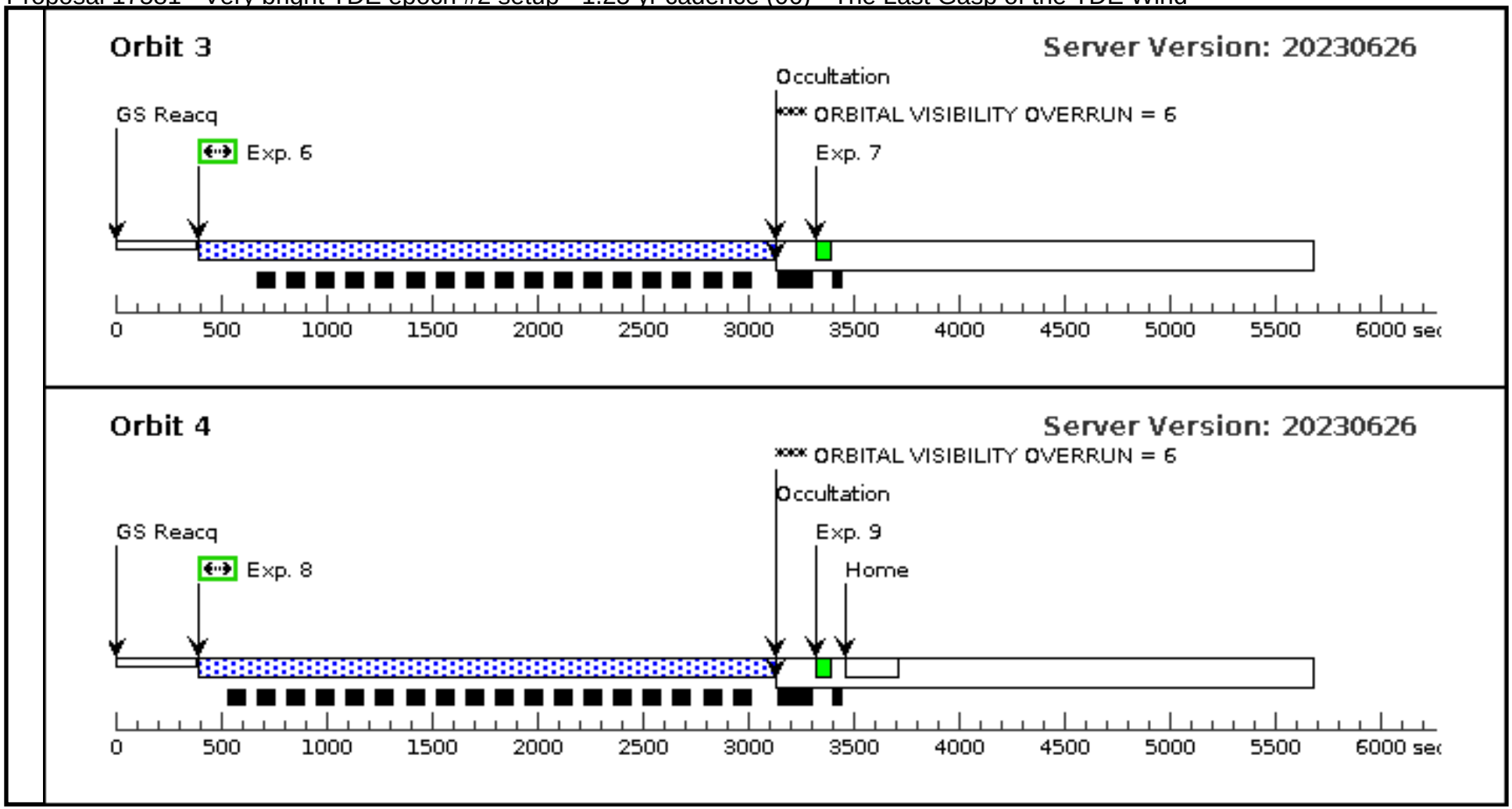
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Very bright TDE acquisition (STIS.ta.1523033)	(2) TDE-TOO-2	STIS/CCD, ACQ, F25ND3	MIRROR	DIFFUSE-CENTER=FLUX-CENTROID; ACQTYPE=DIFFUSE; CHECKBOX=13			180 Secs (180 Secs) *[==>]*	***[1]***
2	Very bright TDE NUV spectrum (STIS.sp.1523057)	(2) TDE-TOO-2	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148; WAVECAL=NO			1300 Secs (1502 Secs) *[==>1502.0 Secs]*	***[1]***
3	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[1]***
4	Very bright TDE NUV spectrum (STIS.sp.1523057)	(2) TDE-TOO-2	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148			2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
5	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[2]***
6	Very bright TDE FUV spectrum (STIS.sp.1523058)	(2) TDE-TOO-2	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			2500 Secs (2581 Secs) *[==>2581.0 Secs]*	***[3]***
7	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[3]***
8	Very bright TDE FUV spectrum (STIS.sp.1523058)	(2) TDE-TOO-2	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***
9	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[4]***

Orbit Structure



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Exp. 7
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6000 sec
Orbit 4
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 6
Occultation
GS Reacq
Exp. 9
Exp. 8
Home
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6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #1 setup - 1.25 yr cadence (07) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is NOT bright enough for a strong filter or TIME-TAG mode.

Since this has 1.25 year cadence, it is followed by visit (08) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is less bright.

This setup will be triggered for a less-bright TDE which does not warrant a strong acquisition filter or TIME-TAG mode. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

Acquisition time may need to be modified.

Diagnostics

(Moderately bright TDE epoch #1 setup - 1.25 yr cadence (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 1.25 yr cadence (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 1.25 yr cadence (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 1.25 yr cadence (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

#	Name	Criteria	Description
(2)	TDE-TOO-2	UV-bright Tidal Disruption Event	ACCRETION DISK
			BLR
			NUCLEUS
			WIND

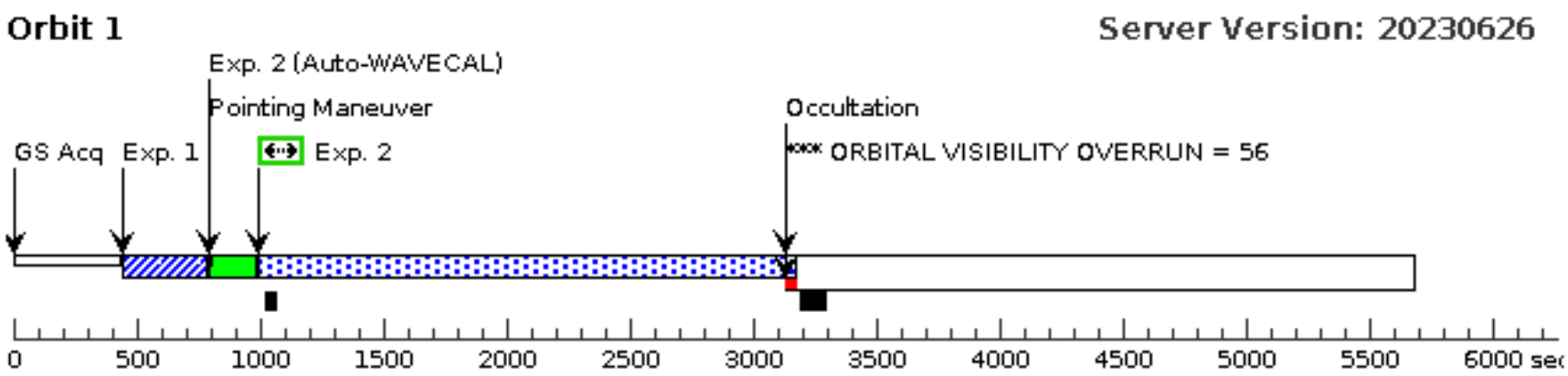
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

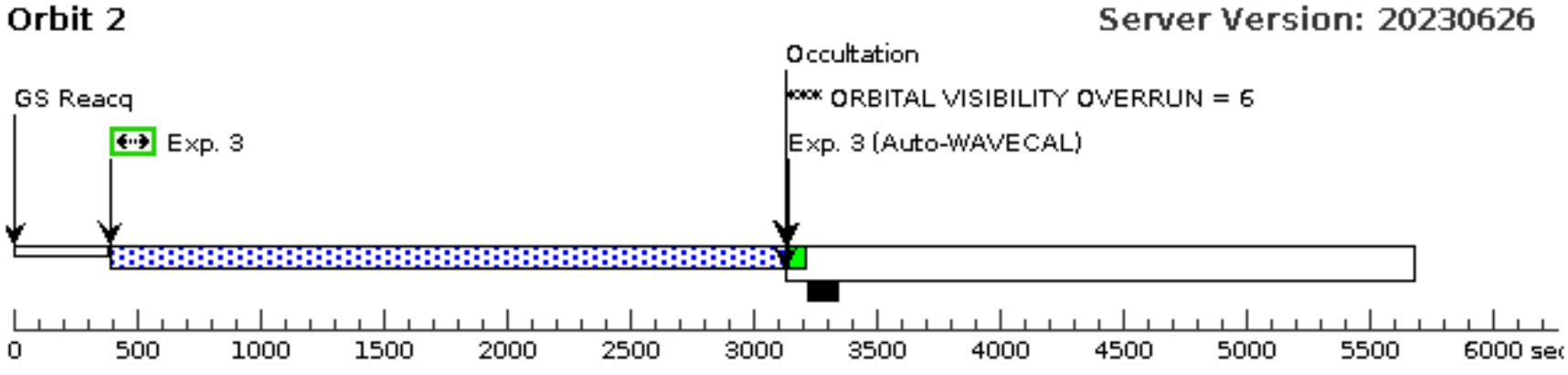
Proposal 17581 - Moderately bright TDE epoch #1 setup - 1.25 yr cadence (07) - The Last Gasp of the TDE Wind

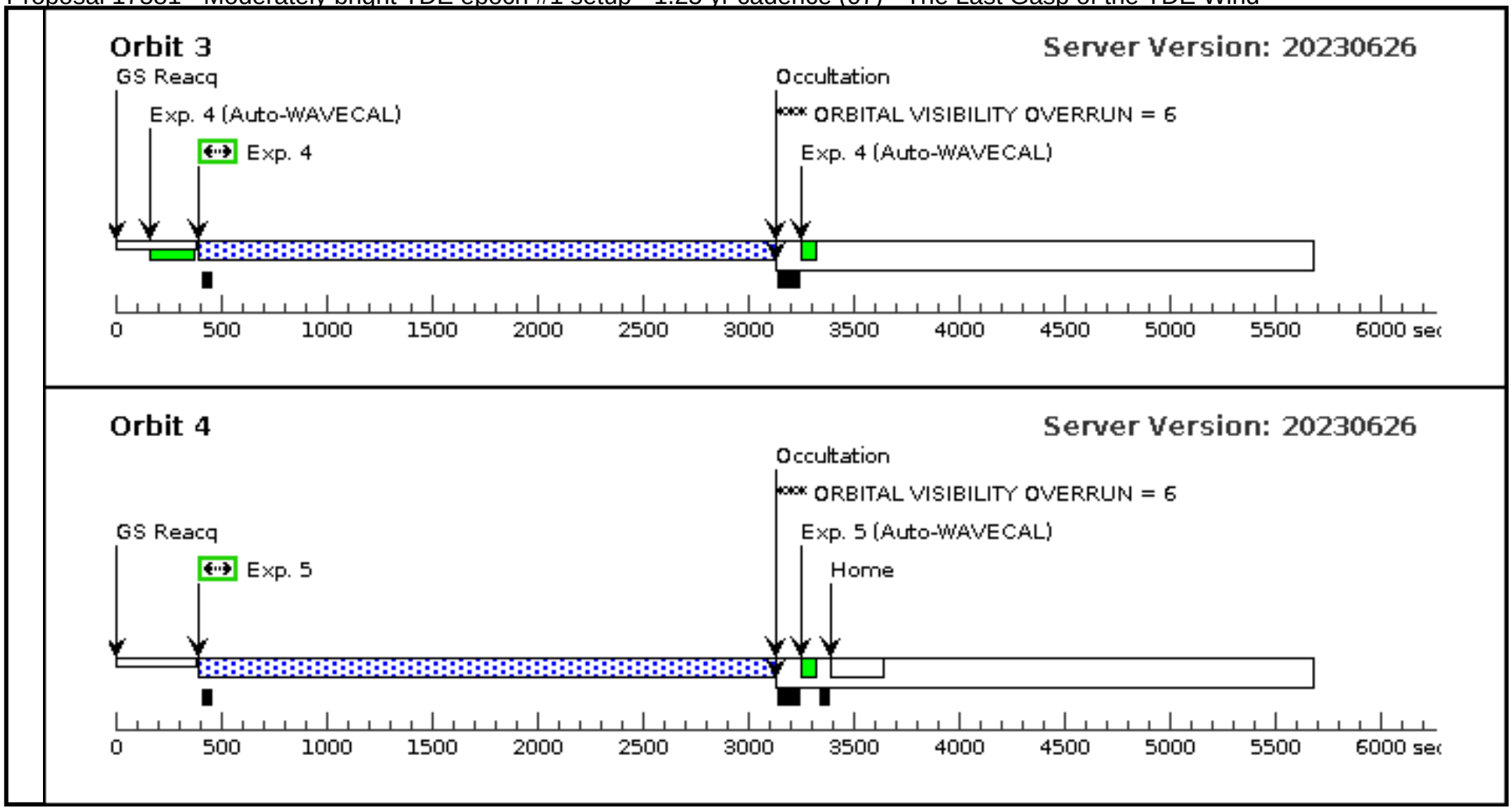
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(2) TDE-TOO-2	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(2) TDE-TOO-2	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(2) TDE-TOO-2	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(2) TDE-TOO-2	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1300 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(2) TDE-TOO-2	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure



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Exp. 4
Occultation
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Orbit 4
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 6
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
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Visit

Proposal 17581, Moderately bright TDE epoch #2 setup - 1.25 yr cadence (08) Wed Aug 30 22:00:53 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 07 BY 399 D TO 513 D; ON HOLD

Comments: This observation assumes the TDE is NOT sufficiently bright for a strong filter or TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Acquisition time and timing requirements may need to be revised.

Diagnostics

(Moderately bright TDE epoch #2 setup - 1.25 yr cadence (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 1.25 yr cadence (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 1.25 yr cadence (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 1.25 yr cadence (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

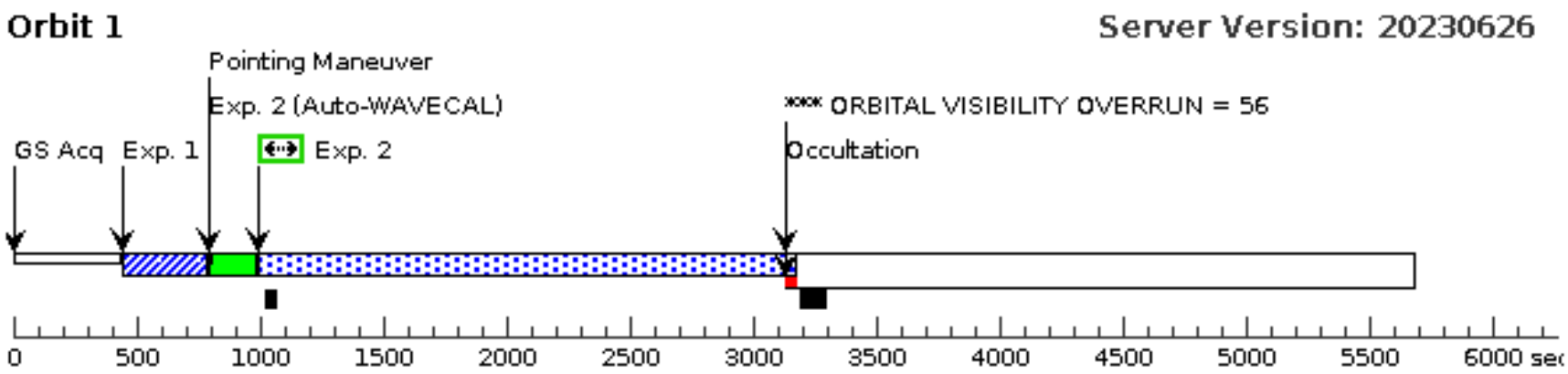
#	Name	Criteria	Description
(2)	TDE-TOO-2	UV-bright Tidal Disruption Event	ACCRETION DISK BLR NUCLEUS WIND

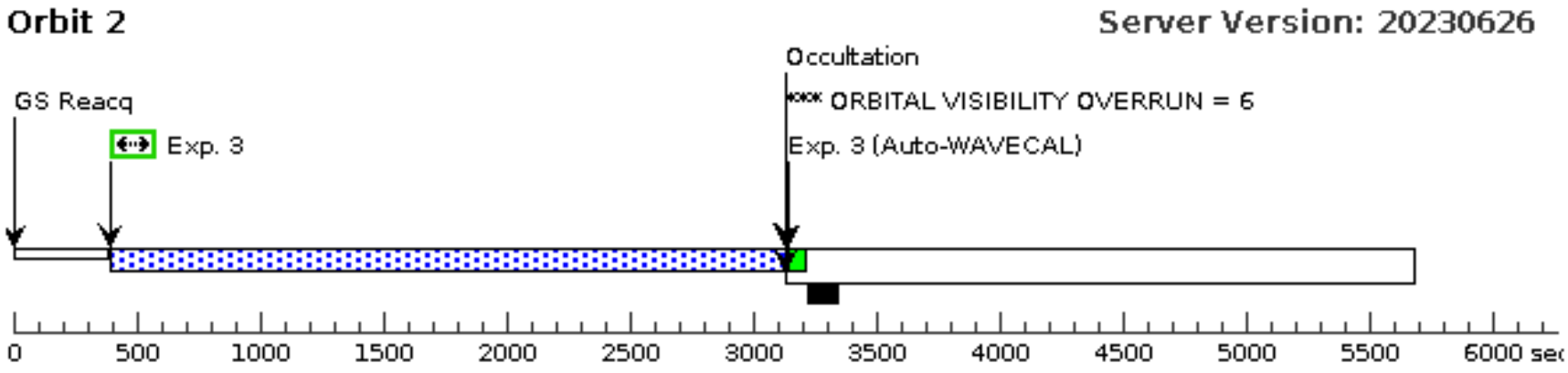
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

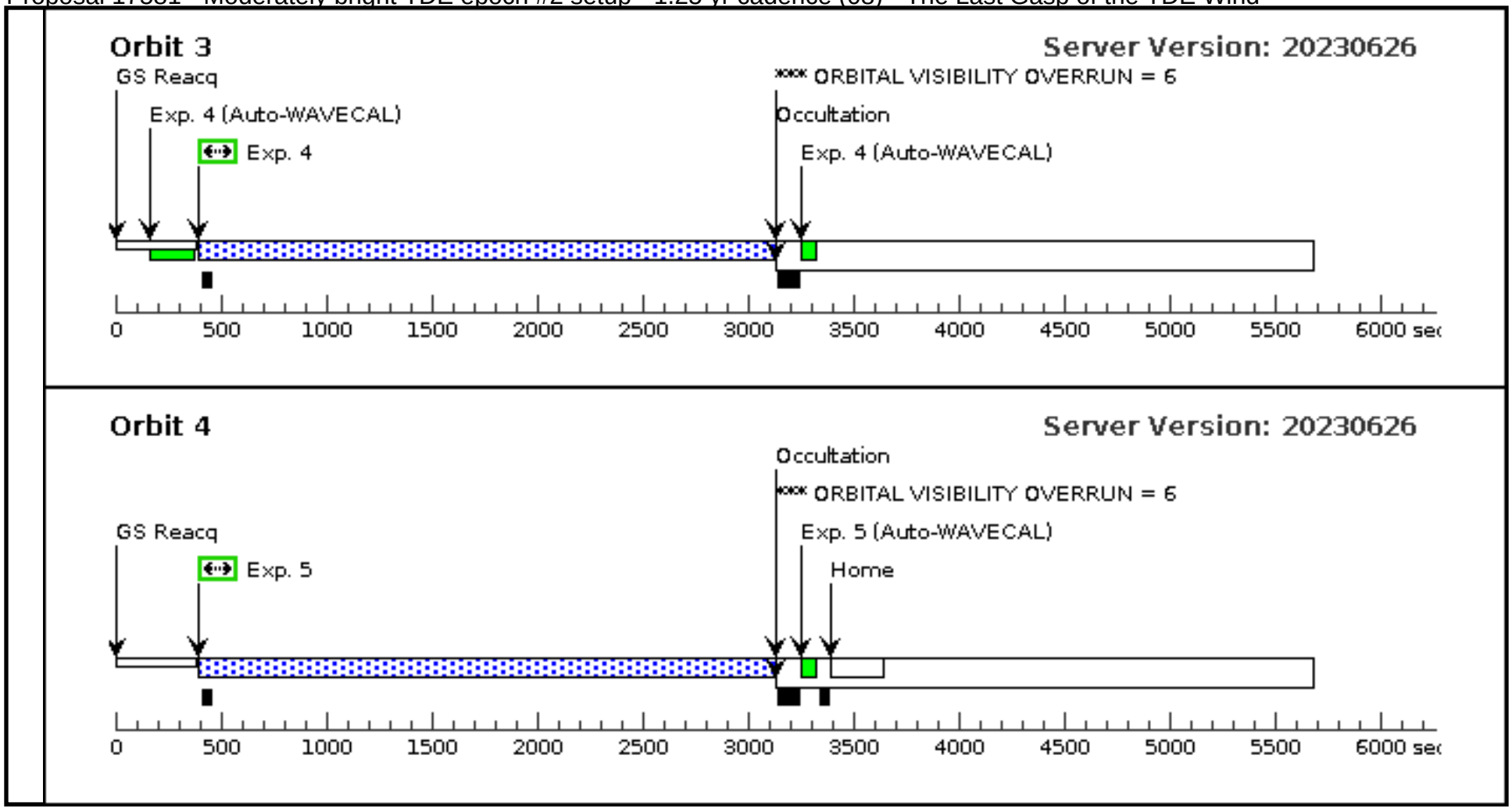
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(2) TDE-TOO-2	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(2) TDE-TOO-2	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(2) TDE-TOO-2	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(2) TDE-TOO-2	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(2) TDE-TOO-2	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure



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Server Version: 20230626
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
*** ORBITAL VISIBILITY OVERRUN = 6
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Exp. 4 (Auto-WAVECAL)
0
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6000 sec
Orbit 4
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 6
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
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5500
6000 sec

Visit

Proposal 17581, AT2021ehb epoch #1 setup - 0.41 yr cadence (09) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is sufficiently faint that a CCD50 filter is appropriate for acquisition, and that TIME-TAG mode will be beneficial

Since this has 0.41 year cadence, it is followed by visit (10) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is very bright.

This setup will be triggered for a TDE which is bright enough to require a neutral density filter for acquisiton, and that TIME-TAG mode will be beneficial. In such a case, one orbit per grating may be sufficient for Epoch #1. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

The buffer times may also need to be increased.

Diagnostics

(AT2021ehb epoch #1 setup - 0.41 yr cadence (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2021ehb epoch #1 setup - 0.41 yr cadence (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2021ehb epoch #1 setup - 0.41 yr cadence (09)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE

(AT2021ehb epoch #1 setup - 0.41 yr cadence (09)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE

(AT2021ehb epoch #1 setup - 0.41 yr cadence (09)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE

Fixed Targets

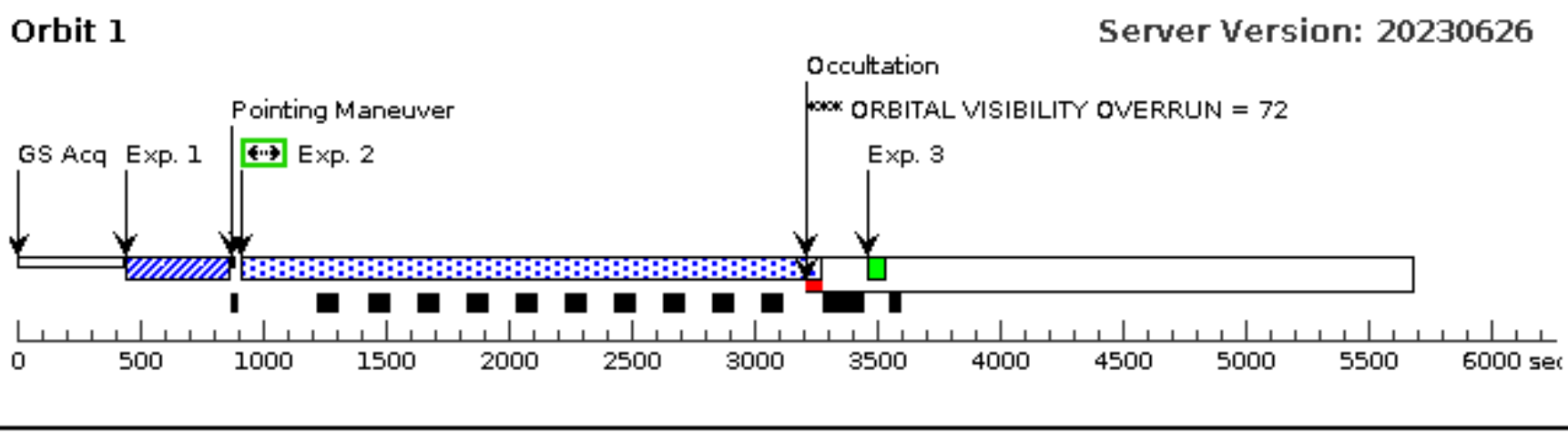
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	NAME-AT-2021EHB	RA: 03 07 47.8060 (46.9491917d) Dec: +40 18 40.57 (40.31127d) Equinox: J2000	Epoch of Position: 2015.5 Redshift: 0.017	V=19	Reference Frame: SIMBAD

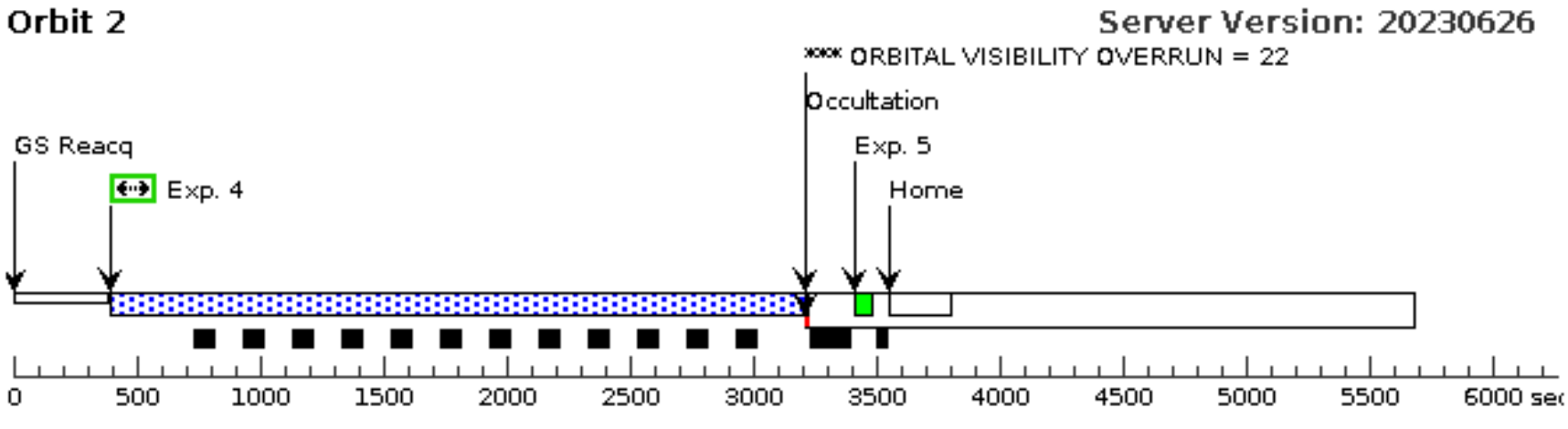
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[NUCLEUS]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Bright TDE acquisition (STIS.ta.1690860)	(7) NAME-AT-2021EHB	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=25; DIFFUSE-CENTER=FLUX-CENTROID			11 Secs (11 Secs) *[==>]*	***[1]***
	Comments: Extinction E(B-V) for this target was determined at its coordinates using https://irsa.ipac.caltech.edu/applications/DUST/ *Redshift z=0.017 was determined from Simbad and the transient name server: https://www.wis-tns.org/object/2021ehb* *The spectral normalization determined via private communication from the team studying this transient with Swift. They reported UVW2~19 mag for the Swift UVOT via private communication. We used standard Swift photometric conversions to obtain F_UVW2~4.5e-16 cgs. We selected 1900 AA since UVW2 throughput peaks at ~1900 AA. The UVW2 filter has a red tail, but like quasars TDEs tend to have blue SEDs, so this is a reasonable approximation.*								
2	Bright TDE NUV spectrum (STIS.sp.1690862)	(7) NAME-AT-2021EHB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=200; WAVECAL=NO			1300 Secs (2229 Secs) *[==>2229.0 Secs]*	***[1]***
3	Wavecal	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[1]***
4	Bright TDE FUV spectrum (STIS.sp.1690863)	(7) NAME-AT-2021EHB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=200			1300 Secs (2677 Secs) *[==>2677.0 Secs]*	***[2]***
5	Wavecal	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 17581, AT2021ehb epoch #2 setup - 0.41 yr cadence (10) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 09 BY 137 D TO 165 D

Comments: This observation assumes the TDE is sufficiently faint that a CCD50 filter is appropriate for acquisition, and that TIME-TAG mode will be beneficial

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

Diagnostics

(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE
(AT2021ehb epoch #2 setup - 0.41 yr cadence (10)) Warning (Orbit Planner): REFERENCE-FRAME MUST BE ICRS OR GSC1 FOR SMALL APERTURE

Fixed Targets

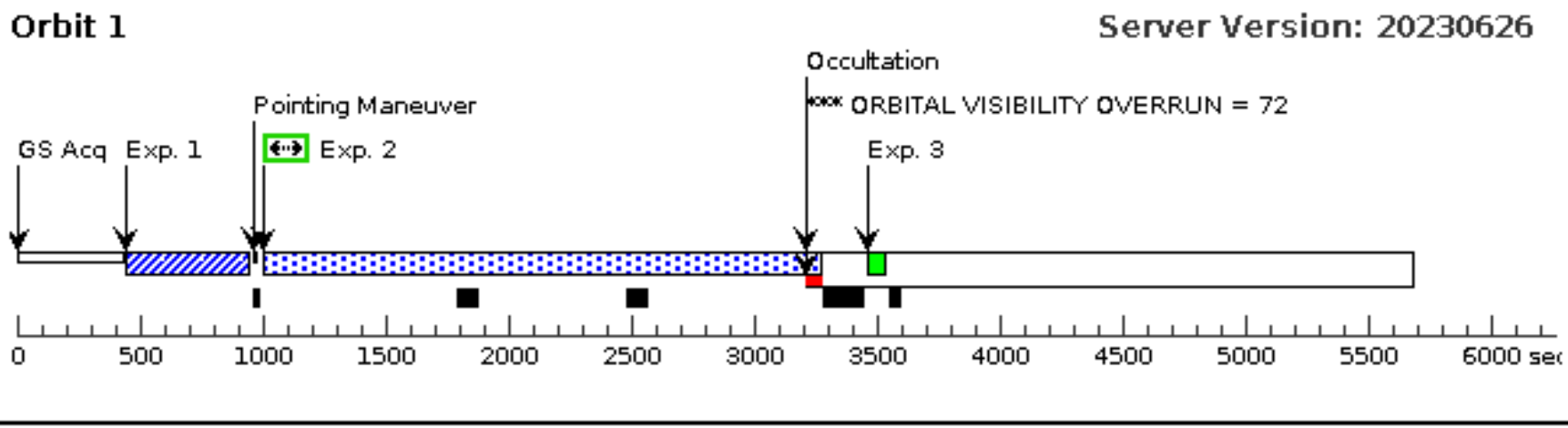
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	NAME-AT-2021EHB	RA: 03 07 47.8060 (46.9491917d)	Epoch of Position: 2015.5	V=19	Reference Frame: SIMBAD
		Dec: +40 18 40.57 (40.31127d)	Redshift: 0.017		
		Equinox: J2000			

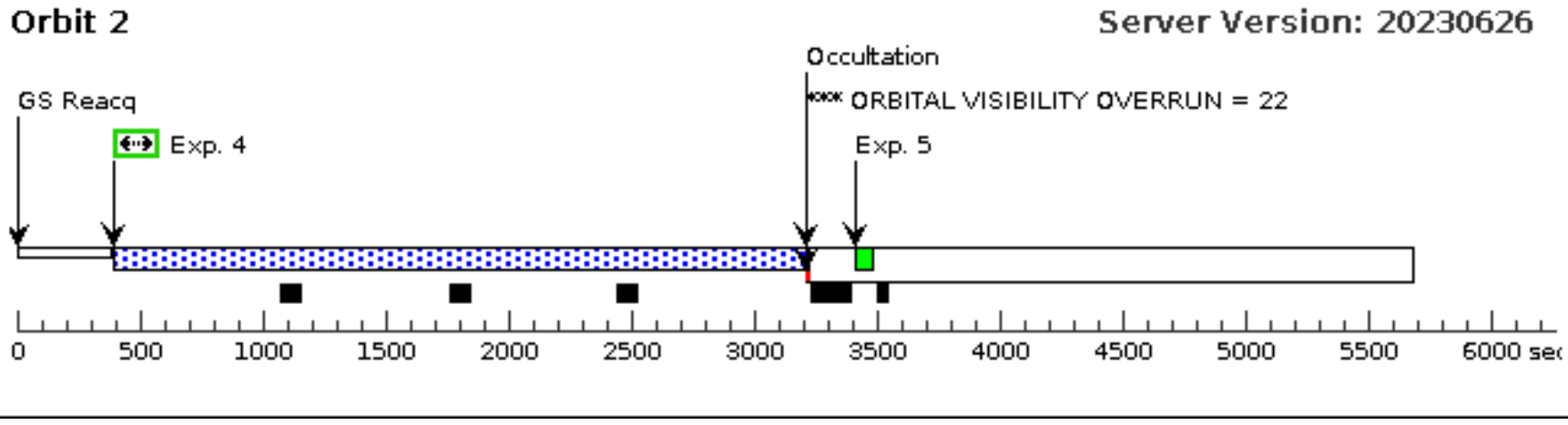
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=GALAXY
Description=[NUCLEUS]

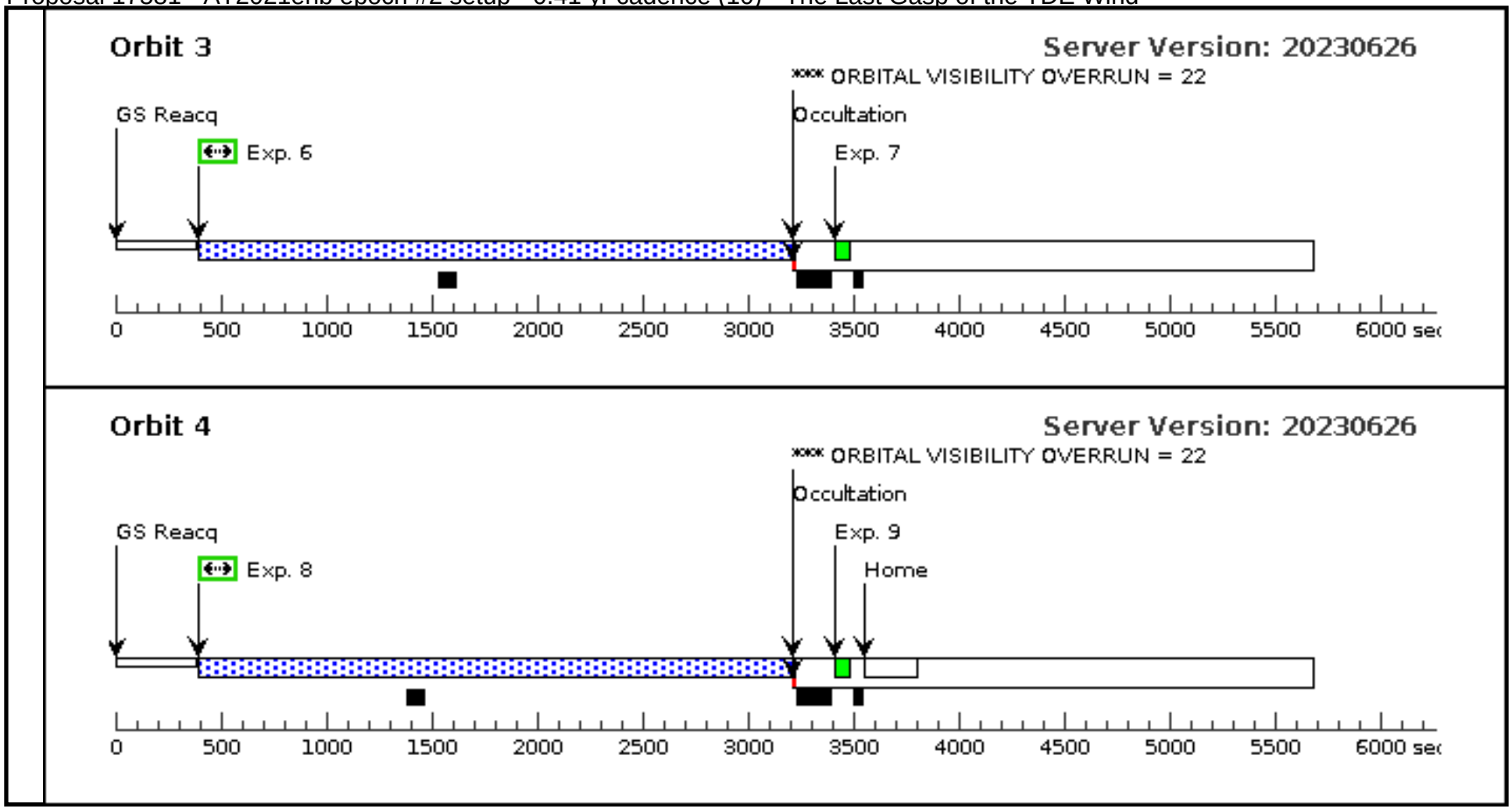
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Bright TDE acquisition (STIS.ta.1690860)	(7) NAME-AT-2021EHB	STIS/CCD, ACQ, F25ND3	MIRROR	DIFFUSE-CENTER=FLUX-CENTROID; ACQTYPE=DIFFUSE; CHECKBOX=25			20 Secs (20 Secs) *[==>]*	***[1]***
2	Bright TDE NUV spectrum (STIS.sp.1690862)	(7) NAME-AT-2021EHB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=685; WAVECAL=NO			1300 Secs (2144 Secs) *[==>2144.0 Secs]*	***[1]***
3	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[1]***
4	Bright TDE NUV spectrum (STIS.sp.1690862)	(7) NAME-AT-2021EHB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=685			2500 Secs (2818 Secs) *[==>2818.0 Secs]*	***[2]***
5	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[2]***
6	Bright TDE FUV spectrum (STIS.sp.1690863)	(7) NAME-AT-2021EHB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=1000			2500 Secs (2677 Secs) *[==>2677.0 Secs]*	***[3]***
7	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[3]***
8	Bright TDE FUV spectrum (STIS.sp.1690863)	(7) NAME-AT-2021EHB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=1000			2500 Secs (2818 Secs) *[==>2818.0 Secs]*	***[4]***
9	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[4]***

Orbit Structure



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Occultation
Exp. 7
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3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
*** ORBITAL VISIBILITY OVERRUN = 22
Occultation
GS Reacq
Exp. 8
Exp. 9
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #1 setup - 0.41 yr cadence (11) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is NOT bright enough for a strong filter or TIME-TAG mode.

Since this has 0.41 year cadence, it is followed by visit (12) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is less bright.

This setup will be triggered for a less-bright TDE which does not warrant a strong acquisition filter or TIME-TAG mode. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

Acquisition time may need to be modified.

Diagnostics

(Moderately bright TDE epoch #1 setup - 0.41 yr cadence (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.41 yr cadence (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.41 yr cadence (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.41 yr cadence (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

#	Name	Criteria	Description
(3)	TDE-TOO-3	UV-bright Tidal Disruption Event	

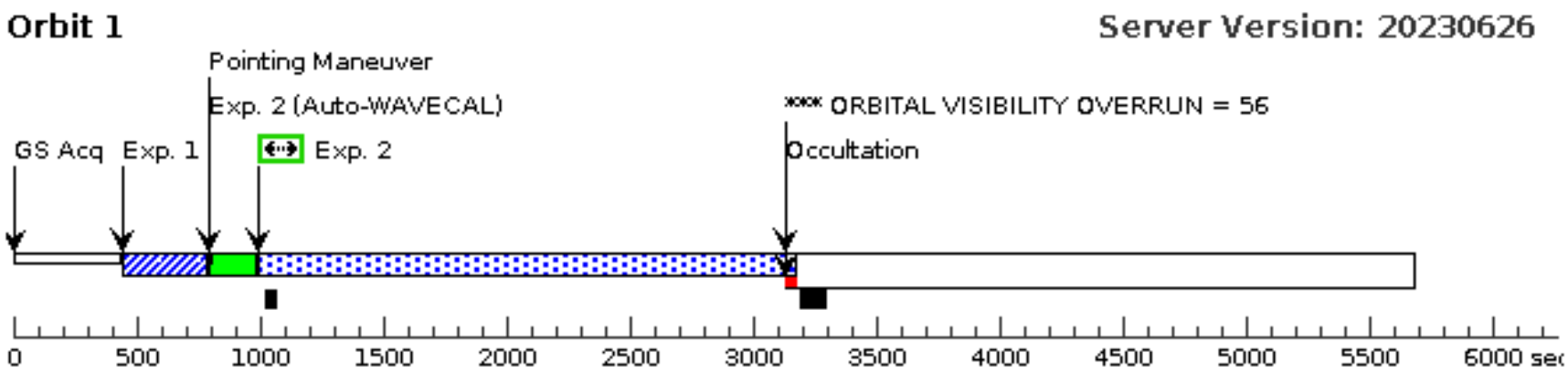
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

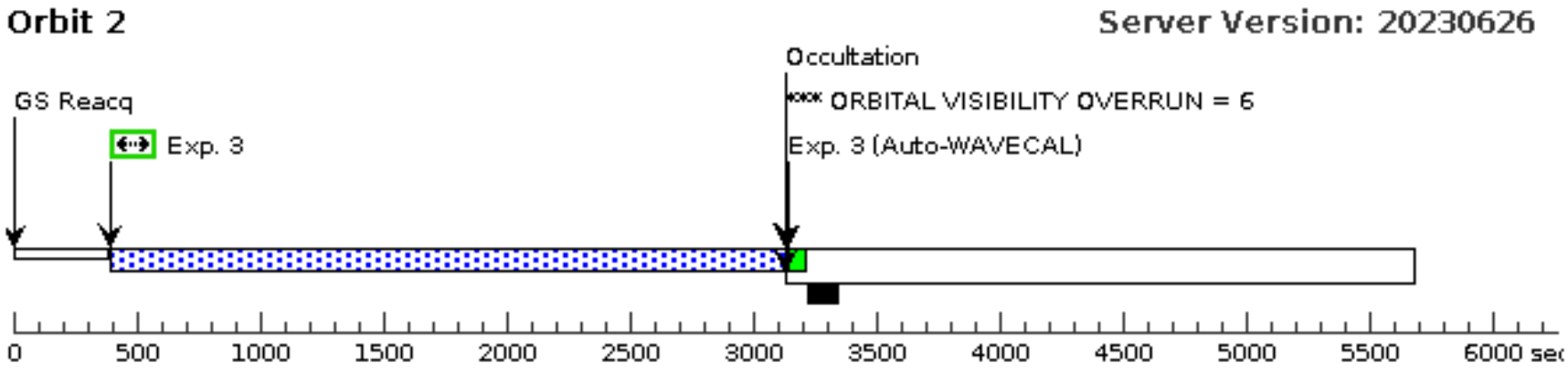
Proposal 17581 - Moderately bright TDE epoch #1 setup - 0.41 yr cadence (11) - The Last Gasp of the TDE Wind

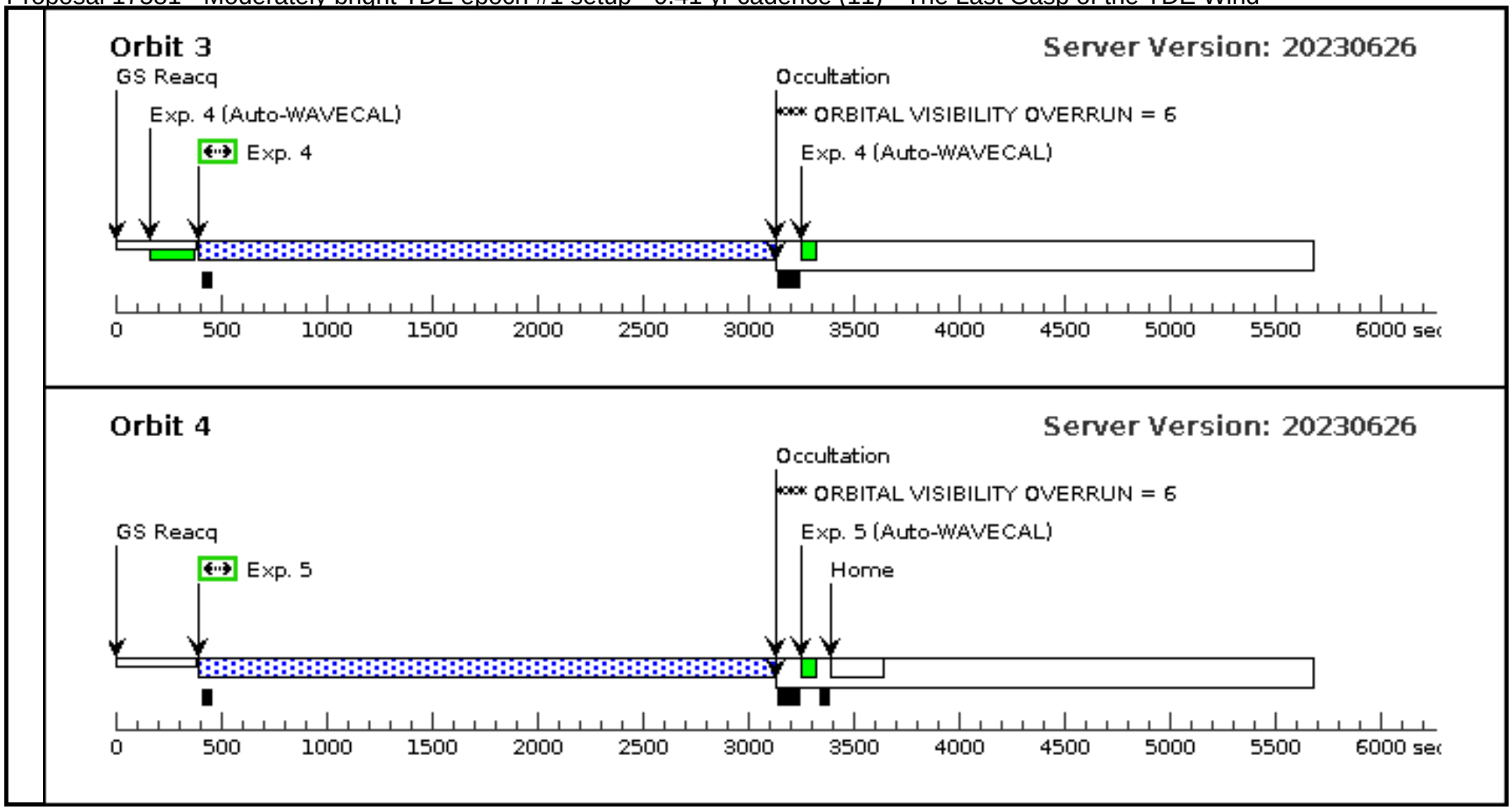
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(3) TDE-TOO-3	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(3) TDE-TOO-3	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(3) TDE-TOO-3	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(3) TDE-TOO-3	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1300 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(3) TDE-TOO-3	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure



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Exp. 4
Occultation
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1000
1500
2000
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3500
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4500
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5500
6000 sec
Orbit 4
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 6
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
500
1000
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2000
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3000
3500
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4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #2 setup - 0.41 yr cadence (12) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 11 BY 131 D TO 168 D; ON HOLD

Comments: This observation assumes the TDE is NOT sufficiently bright for a strong filter or TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Acquisition time and timing requirements may need to be revised.

Diagnostics

(Moderately bright TDE epoch #2 setup - 0.41 yr cadence (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.41 yr cadence (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.41 yr cadence (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.41 yr cadence (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

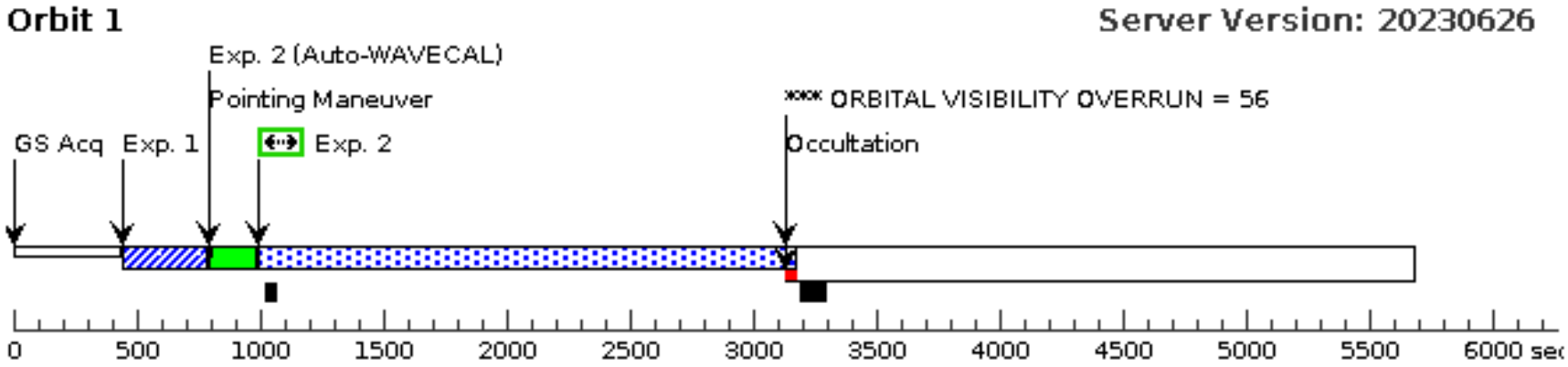
#	Name	Criteria	Description
(3)	TDE-TOO-3	UV-bright Tidal Disruption Event	

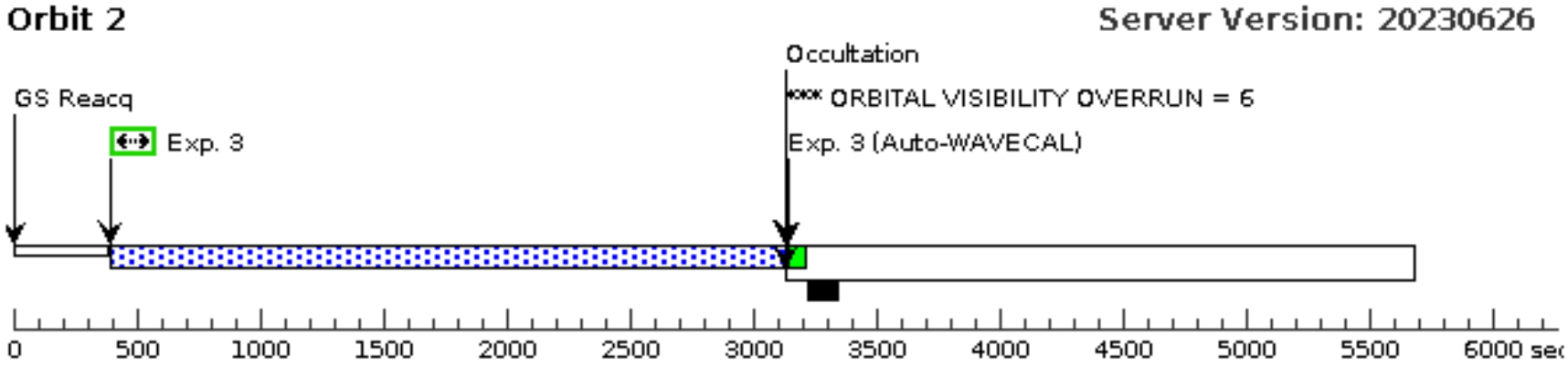
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

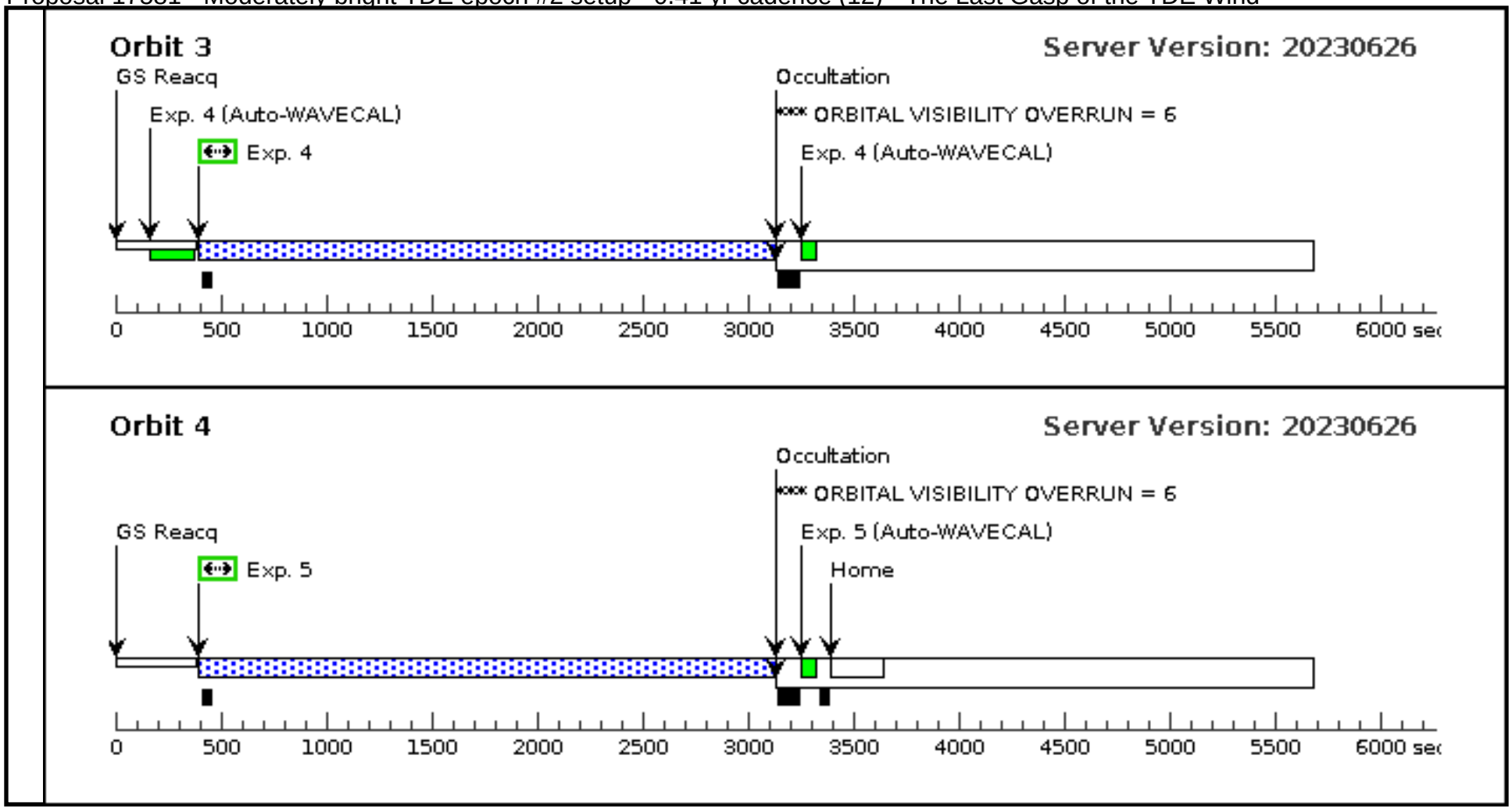
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(3) TDE-TOO-3	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(3) TDE-TOO-3	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(3) TDE-TOO-3	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(3) TDE-TOO-3	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(3) TDE-TOO-3	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure



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GS Reacq
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Exp. 4
Occultation
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1500
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3500
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4500
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5500
6000 sec
Orbit 4
Server Version: 20230626
Occultation
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GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
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1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022dsb epoch #1 setup - 0.26 yr cadence (13) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 24.0D

Comments: This visit will use TIME-TAG mode.

It is followed by visit (14) for epoch #2

On Hold Comments: AT2022dsb (https://www.wis-tns.org/object/2022dsb) is ideal for this program. It has an optical (ASAS-SN) trigger, nuclear location, TDE emission lines, and eROSITA detection.

From V-band bulge photometry and H-alpha width, we estimate the black hole mass to be ~3e7 solar masses, so we expect the Eddington timescale to be ~180 days, so we will sample UV spectroscopy 3x over that period. Our primary constraint is orbital visibility, which is close to the timescale we are interested in.

Diagnostics

(AT2022dsb epoch #1 setup - 0.26 yr cadence (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #1 setup - 0.26 yr cadence (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #1 setup - 0.26 yr cadence (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #1 setup - 0.26 yr cadence (13)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	AT2022DSB	RA: 15 42 21.7276 (235.5905317d) Dec: -22 40 14.23 (-22.67062d) Equinox: J2000	Redshift: 0.023	V=16.2	Reference Frame: ICRS

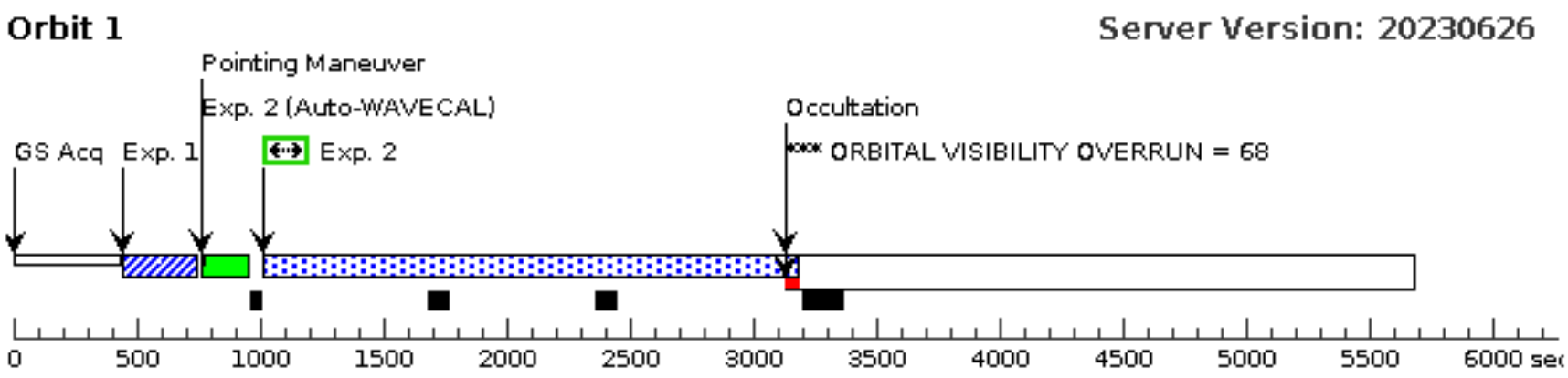
Comments: Discovery report is 15:42:21.743 -22:40:14.04 (same as host galaxy ESO 583-4, which is very extended, so should be coincident with the nucleus). We use RA, DEC from Swift (~0.2 arcsec offset).

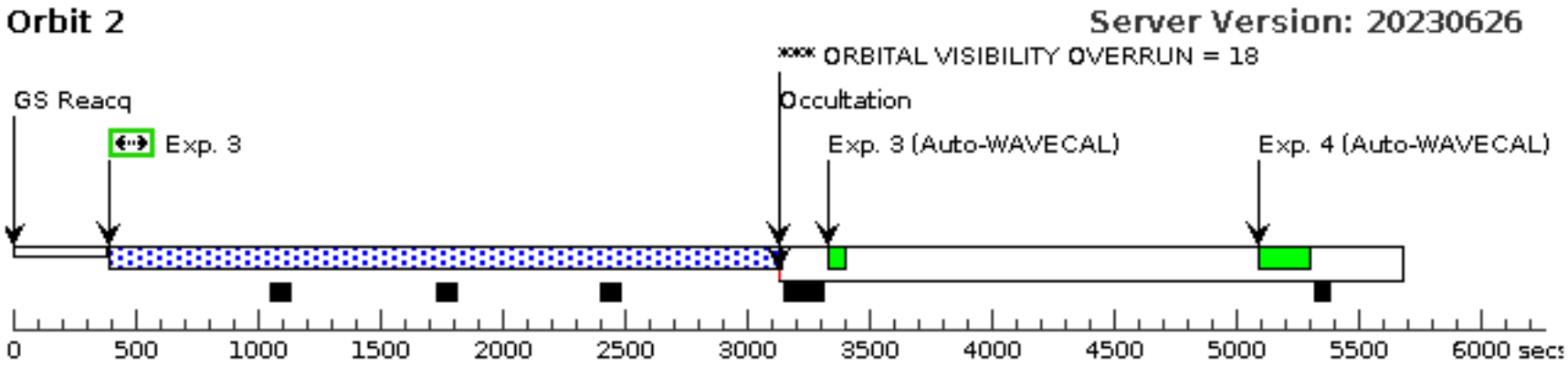
V-magnitude is from most recent Swift measurements
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

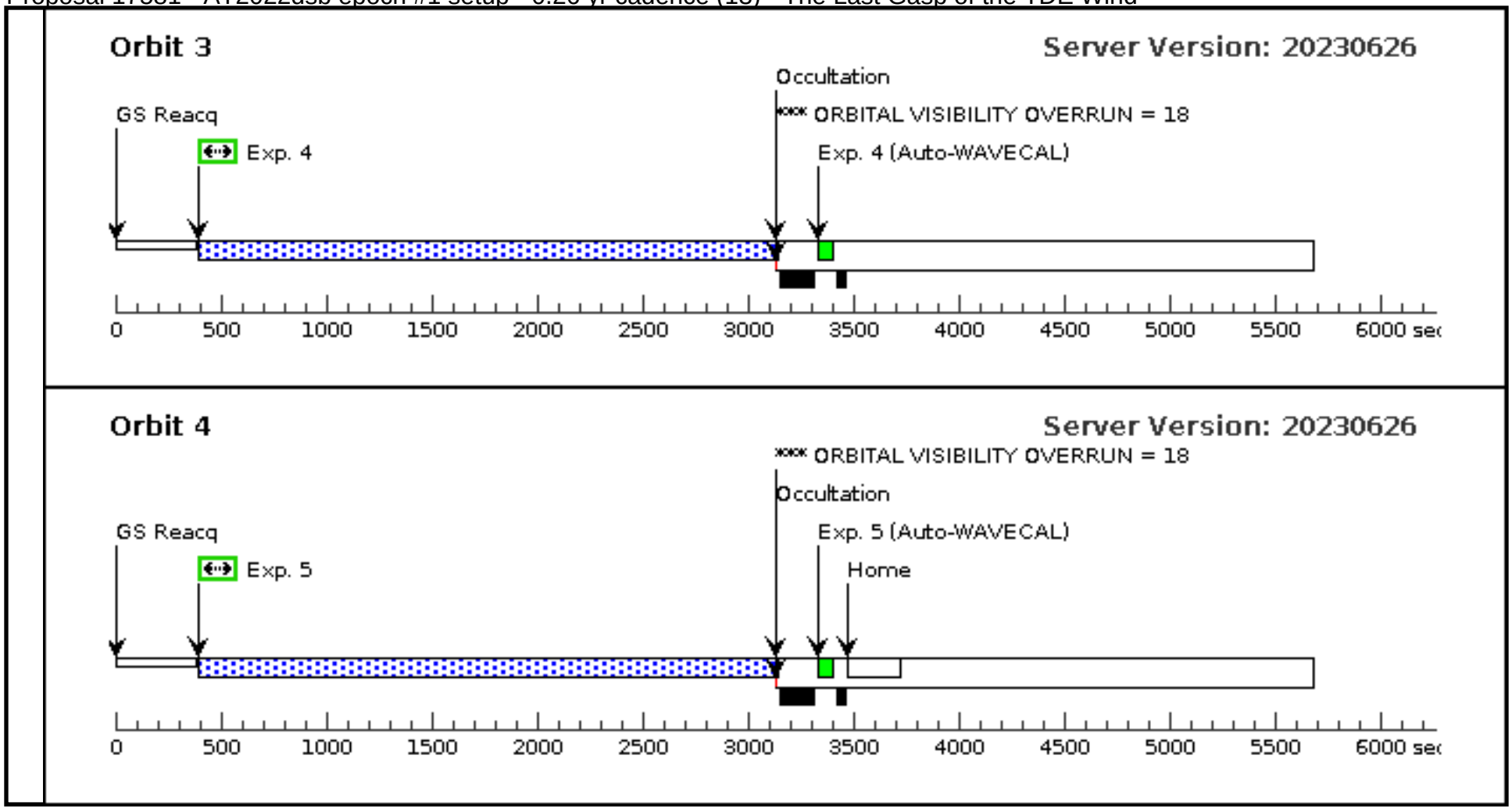
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022dsb acquisition (STIS.ta.1743705)	(8) AT2022DSB	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			15 Secs (15 Secs) *[==>]*	*[1]*
2	AT2022dsb NUV spectrum (STIS.sp.1743708)	(8) AT2022DSB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=6700			1300 Secs (2160 Secs) *[==>2160.0 Secs]*	*[1]*
3	AT2022dsb NUV spectrum (STIS.sp.1743708)	(8) AT2022DSB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=6700			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	*[2]*
4	AT2022dsb FUV spectrum (STIS.sp.1743889)	(8) AT2022DSB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=2000			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	*[3]*
5	AT2022dsb FUV spectrum (STIS.sp.1743889)	(8) AT2022DSB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=2000			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	*[4]*

Orbit Structure






Orbit 3
Server Version: 20230626
Occultation
**** ORBITAL VISIBILITY OVERRUN = 18
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 18
Occultation
GS Reacq
Exp. 5
Exp. 5 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022dsb epoch #2 setup - 0.26 yr cadence (14) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 13 BY 70 D TO 100 D; ON HOLD FOR 13

Comments: This visit will use TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" (Lodato & Rossi 2011). Based on Pan-STARRS imaging of the host galaxy ESO 583-4 and the H-alpha width, we estimate this to be ~190 days, over which we would observe the target 3 times. We may need to be flexible here due to limited observing windows.

On Hold Comments: Epoch #2 in a sequence triggered by TOO (13) AT2022dsb

Diagnostics

(AT2022dsb epoch #2 setup - 0.26 yr cadence (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #2 setup - 0.26 yr cadence (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #2 setup - 0.26 yr cadence (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #2 setup - 0.26 yr cadence (14)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	AT2022DSB	RA: 15 42 21.7276 (235.5905317d) Dec: -22 40 14.23 (-22.67062d) Equinox: J2000	Redshift: 0.023	V=16.2	Reference Frame: ICRS

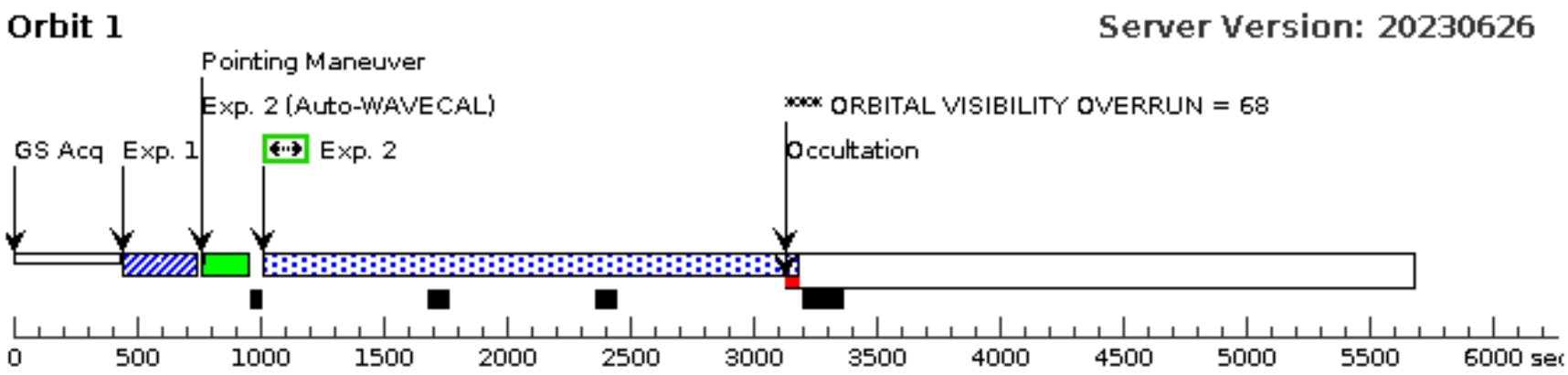
Comments: Discovery report is 15:42:21.743 -22:40:14.04 (same as host galaxy ESO 583-4, which is very extended, so should be coincident with the nucleus). We use RA, DEC from Swift (~0.2 arcsec offset).

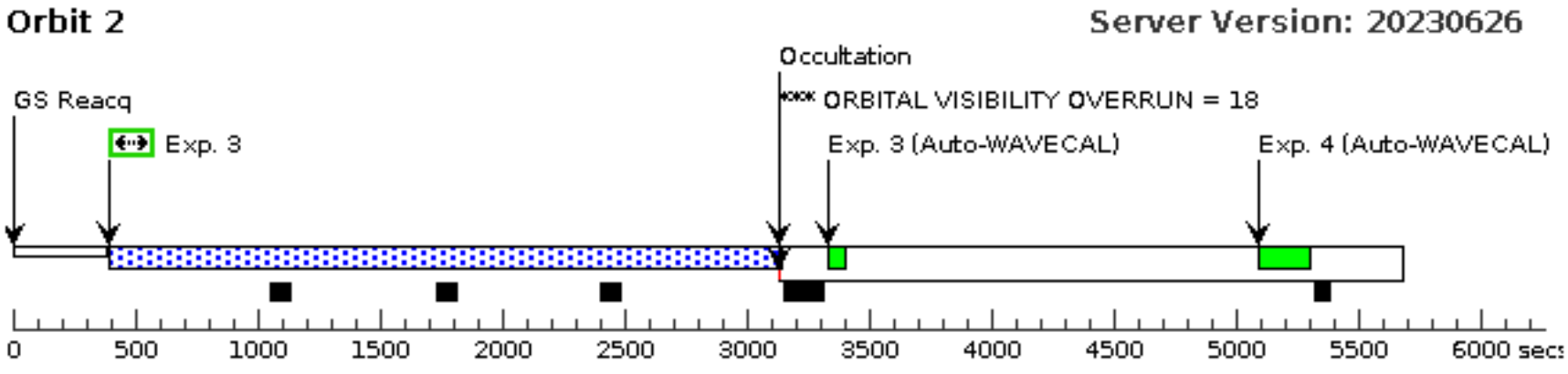
V-magnitude is from most recent Swift measurements
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

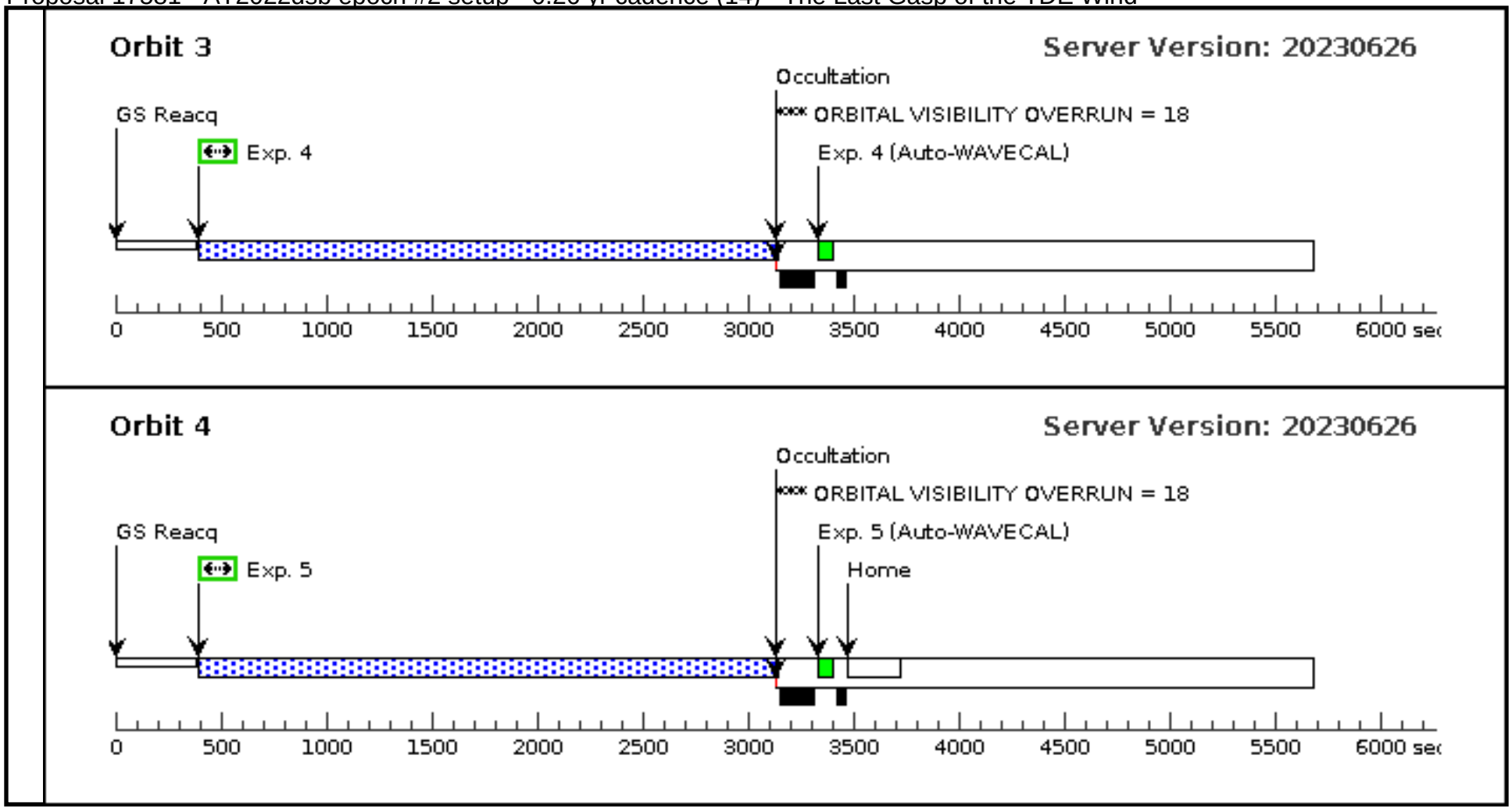
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022dsb acquisition (STIS.ta.1743705)	(8) AT2022DSB	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			15 Secs (15 Secs) *[==>]*	***[1]***
2	AT2022dsb NUV spectrum (STIS.sp.1743708)	(8) AT2022DSB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=670			1300 Secs (2160 Secs) *[==>2160.0 Secs]*	***[1]***
3	AT2022dsb NUV spectrum (STIS.sp.1743708)	(8) AT2022DSB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=670			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	***[2]***
4	AT2022dsb FUV spectrum (STIS.sp.1743889)	(8) AT2022DSB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=2000			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	***[3]***
5	AT2022dsb FUV spectrum (STIS.sp.1743889)	(8) AT2022DSB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=2000			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 18
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 18
GS Reacq
Exp. 5
Exp. 5 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022dsb epoch #3-NUV setup - 0.26 yr cadence (15) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 14 BY 70 D TO 100 D; GROUP 15,16 WITHIN 5D; ON HOLD FOR 14

Comments: This visit will use TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" (Lodato & Rossi 2011). Based on Pan-STARRS imaging of the host galaxy ESO 583-4 and the H-alpha width, we estimate this to be ~190 days, over which we would observe the target 3 times. We may need to be flexible here due to limited observing windows.

On Hold Comments: NUV portion of epoch #3 in a sequence triggered by TOO (13) AT2022dsb

Diagnostics

(AT2022dsb epoch #3-NUV setup - 0.26 yr cadence (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #3-NUV setup - 0.26 yr cadence (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #3-NUV setup - 0.26 yr cadence (15)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	AT2022DSB	RA: 15 42 21.7276 (235.5905317d) Dec: -22 40 14.23 (-22.67062d) Equinox: J2000	Redshift: 0.023	V=16.2	Reference Frame: ICRS

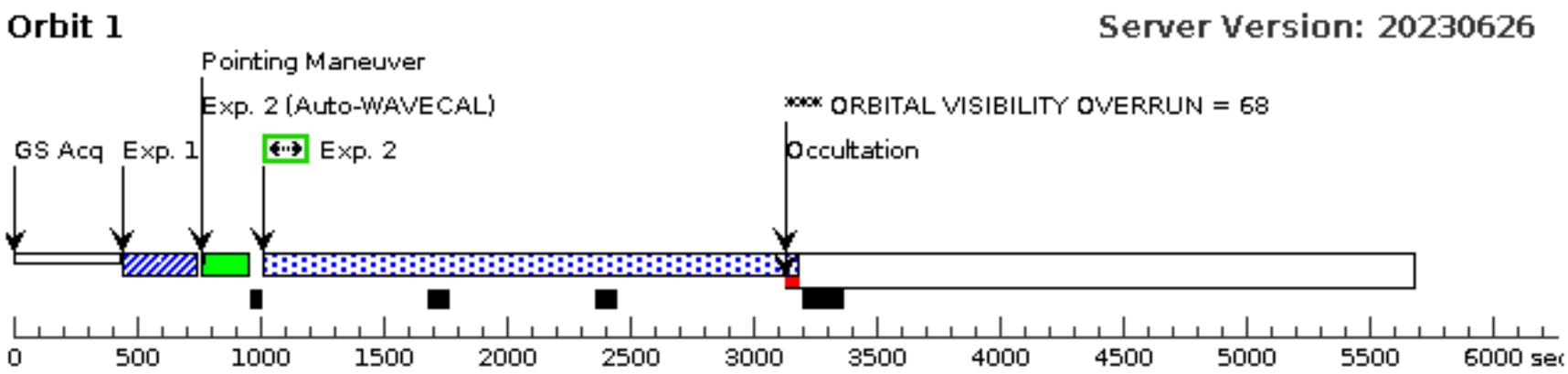
Comments: Discovery report is 15:42:21.743 -22:40:14.04 (same as host galaxy ESO 583-4, which is very extended, so should be coincident with the nucleus). We use RA, DEC from Swift (~0.2 arcsec offset).

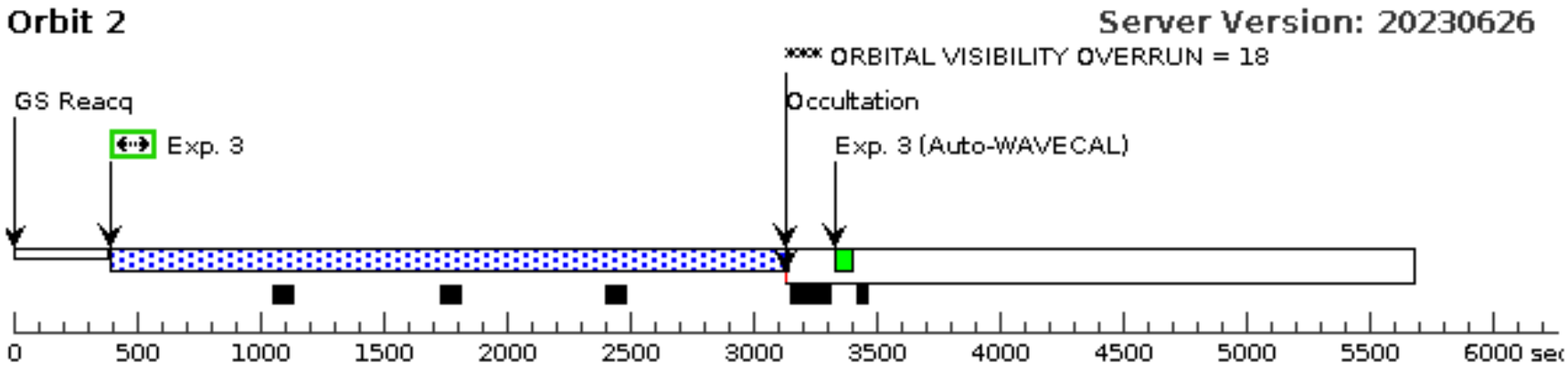
V-magnitude is from most recent Swift measurements
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

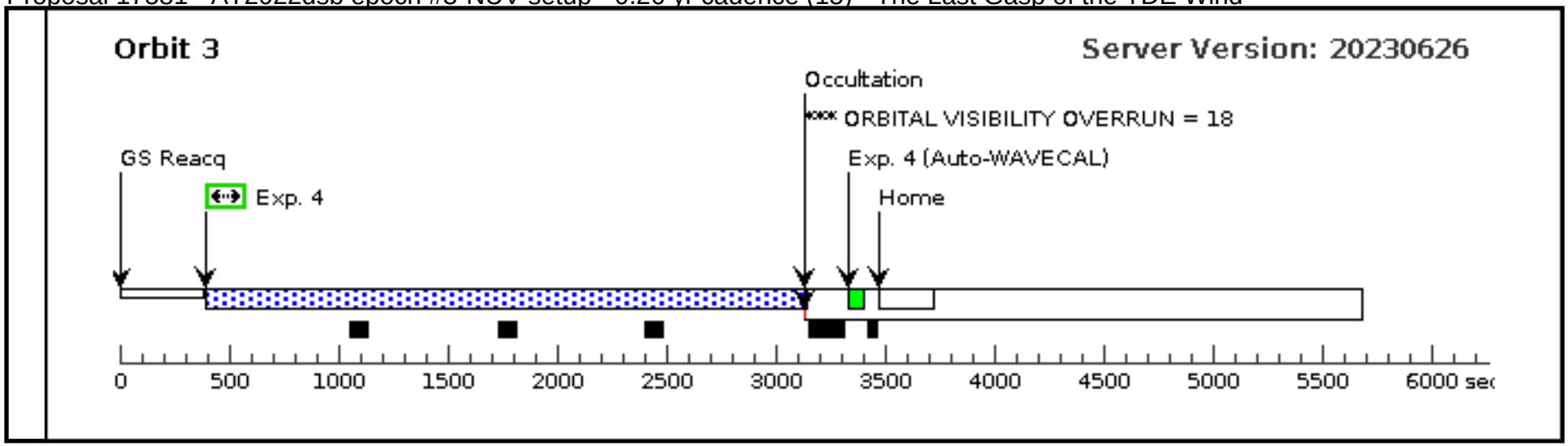
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022dsb acquisition (STIS.ta.1743705)	(8) AT2022DSB	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			15 Secs (15 Secs) *[==>]*	***[1]***
2	AT2022dsb NUV spectrum (STIS.sp.1743708)	(8) AT2022DSB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=670			1300 Secs (2160 Secs) *[==>2160.0 Secs]*	***[1]***
3	AT2022dsb NUV spectrum (STIS.sp.1743708)	(8) AT2022DSB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=670			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	***[2]***
4	AT2022dsb NUV spectrum (STIS.sp.1743708)	(8) AT2022DSB	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=670			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20230626
Occultation
**** ORBITAL VISIBILITY OVERRUN = 18
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022dsb epoch #3-FUV setup - 0.26 yr cadence (16) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 14 BY 70 D TO 100 D; ON HOLD FOR 14

Comments: This visit will use TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" (Lodato & Rossi 2011). Based on Pan-STARRS imaging of the host galaxy ESO 583-4 and the H-alpha width, we estimate this to be ~190 days, over which we would observe the target 3 times. We may need to be flexible here due to limited observing windows.

On Hold Comments: FUV portion of epoch #3 in a sequence triggered by TOO (13) AT2022dsb

Diagnostics

(AT2022dsb epoch #3-FUV setup - 0.26 yr cadence (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #3-FUV setup - 0.26 yr cadence (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022dsb epoch #3-FUV setup - 0.26 yr cadence (16)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	AT2022DSB	RA: 15 42 21.7276 (235.5905317d) Dec: -22 40 14.23 (-22.67062d) Equinox: J2000	Redshift: 0.023	V=16.2	Reference Frame: ICRS

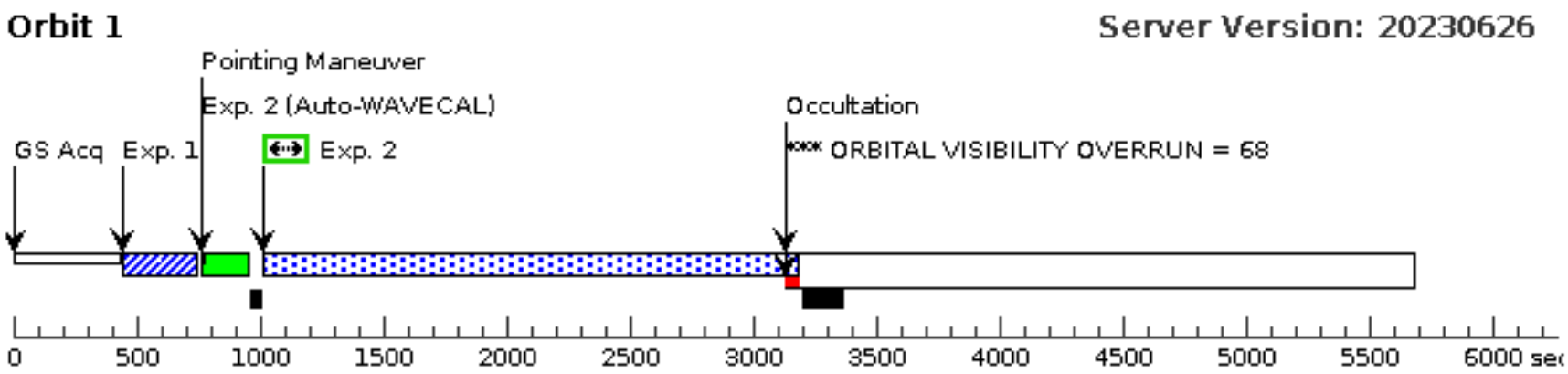
Comments: Discovery report is 15:42:21.743 -22:40:14.04 (same as host galaxy ESO 583-4, which is very extended, so should be coincident with the nucleus). We use RA, DEC from Swift (~0.2 arcsec offset).

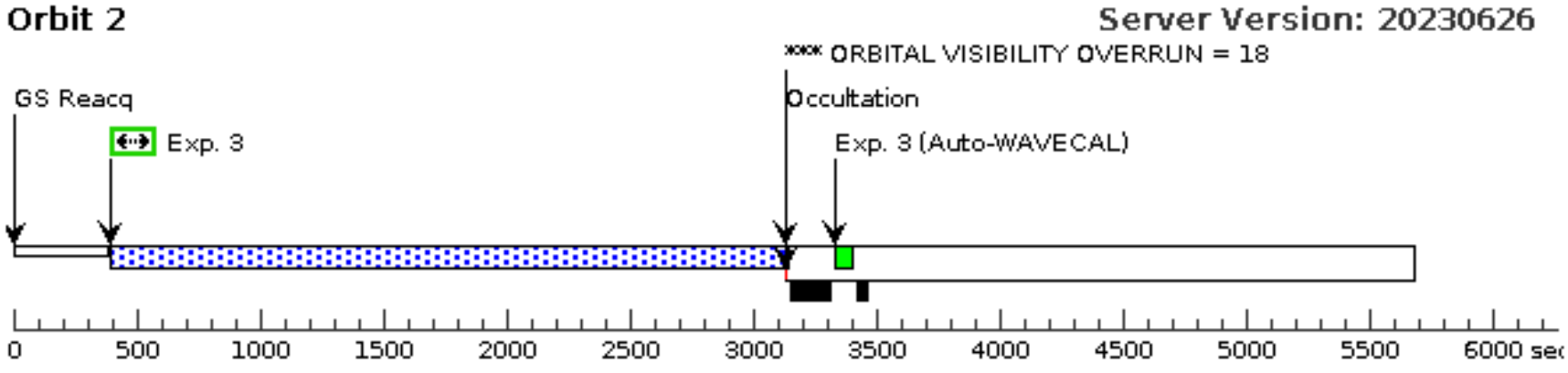
V-magnitude is from most recent Swift measurements
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

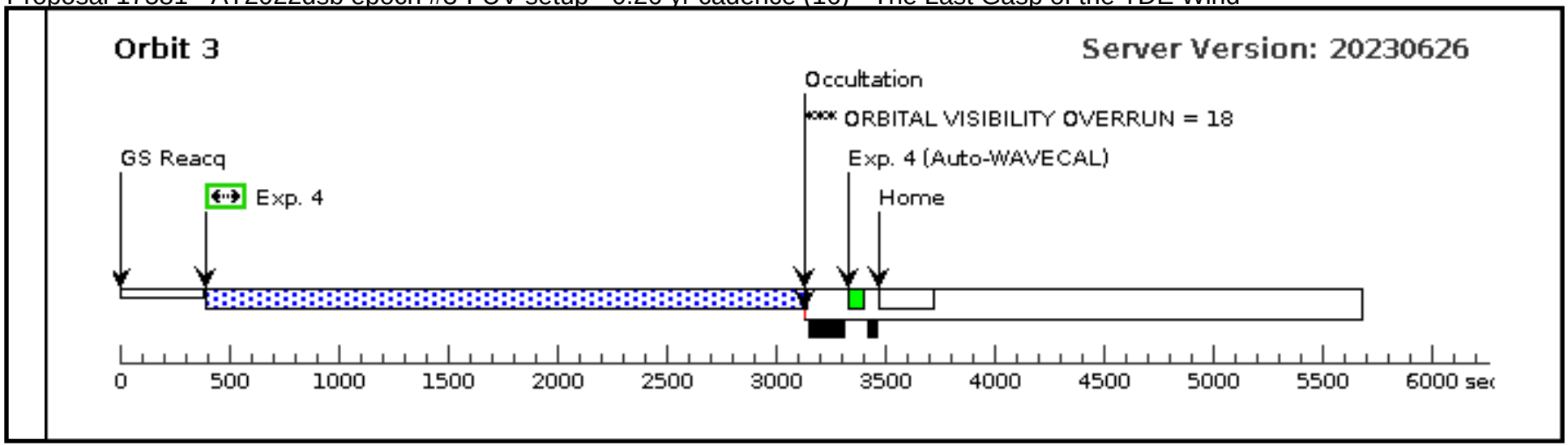
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022dsb acquisition (STIS.ta.1743705)	(8) AT2022DSB	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			15 Secs (15 Secs) *[==>]*	*[1]*
2	AT2022dsb FUV spectrum (STIS.sp.1743889)	(8) AT2022DSB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=2000			1300 Secs (2160 Secs) *[==>2160.0 Secs]*	*[1]*
3	AT2022dsb FUV spectrum (STIS.sp.1743889)	(8) AT2022DSB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=2000			1300 Secs (2737 Secs) *[==>2737.0 Secs]*	*[2]*
4	AT2022dsb FUV spectrum (STIS.sp.1743889)	(8) AT2022DSB	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=2000			2737 Secs (2737 Secs) *[==>]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20230626
Occultation
**** ORBITAL VISIBILITY OVERRUN = 18
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #1 setup - 0.55 yr cadence (21) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is NOT bright enough for a strong filter or TIME-TAG mode.

Since this has 0.55 year cadence, it is followed by visit (16) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is less bright.

This setup will be triggered for a less-bright TDE which does not warrant a strong acquisition filter or TIME-TAG mode. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

Acquisition time may need to be modified.

Diagnostics

(Moderately bright TDE epoch #1 setup - 0.55 yr cadence (21)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.55 yr cadence (21)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.55 yr cadence (21)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.55 yr cadence (21)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

#	Name	Criteria	Description
(4)	TDE-TOO-4	UV-bright Tidal Disruption Event	

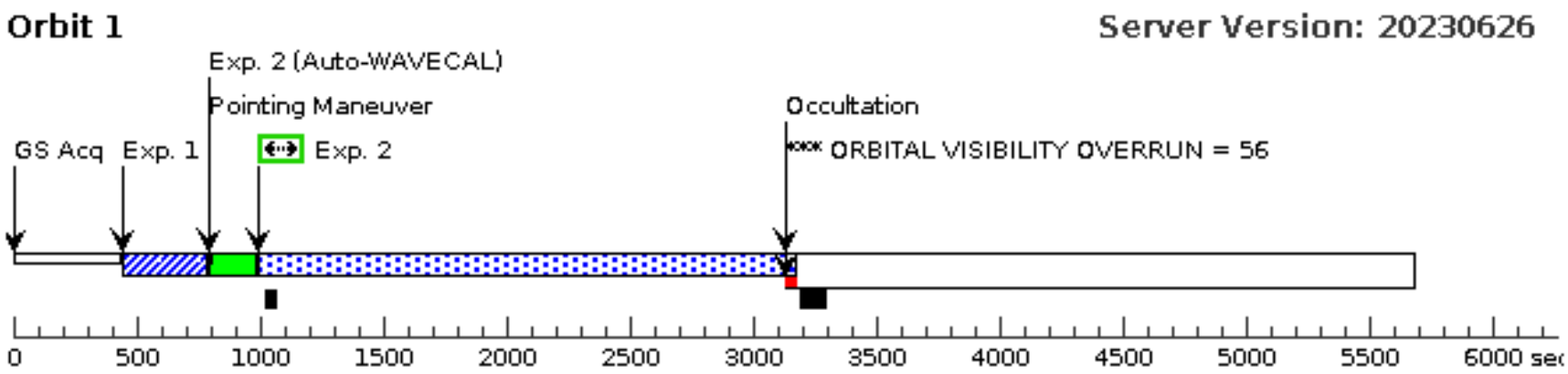
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

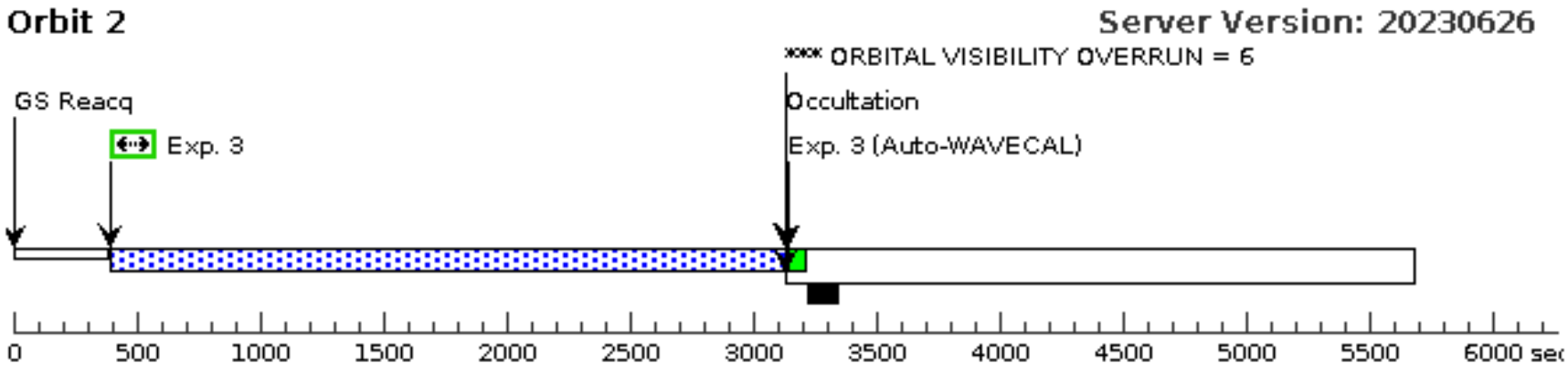
Proposal 17581 - Moderately bright TDE epoch #1 setup - 0.55 yr cadence (21) - The Last Gasp of the TDE Wind

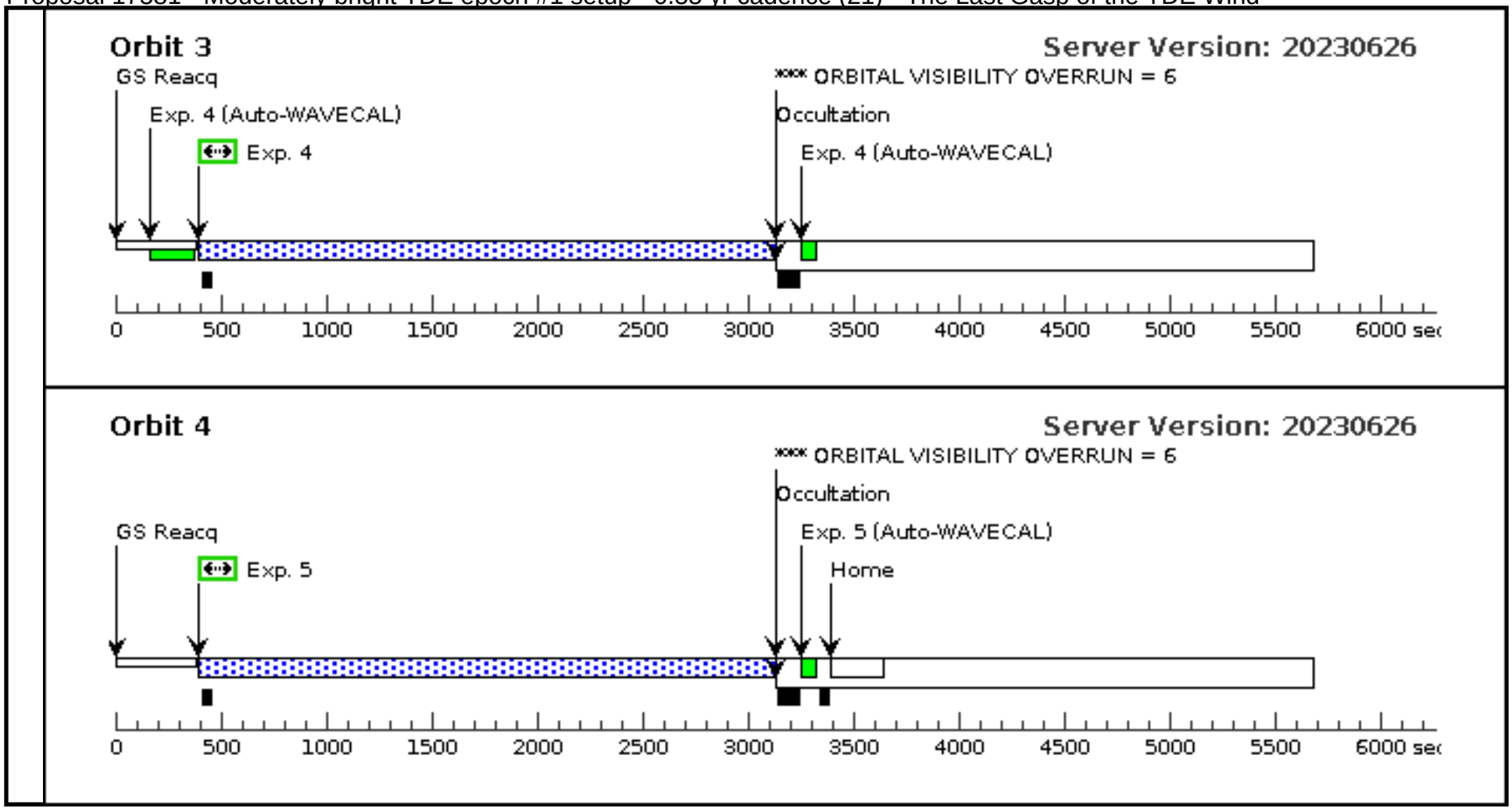
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(4) TDE-TOO-4	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(4) TDE-TOO-4	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(4) TDE-TOO-4	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(4) TDE-TOO-4	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1300 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(4) TDE-TOO-4	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20230626
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
**** ORBITAL VISIBILITY OVERRUN = 6
Occultation
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 6
Occultation
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #2 setup - 0.55 yr cadence (22) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 21 BY 176 D TO 226 D; ON HOLD

Comments: This observation assumes the TDE is NOT sufficiently bright for a strong filter or TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Acquisition time and timing requirements may need to be revised.

Diagnostics

(Moderately bright TDE epoch #2 setup - 0.55 yr cadence (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.55 yr cadence (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.55 yr cadence (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.55 yr cadence (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

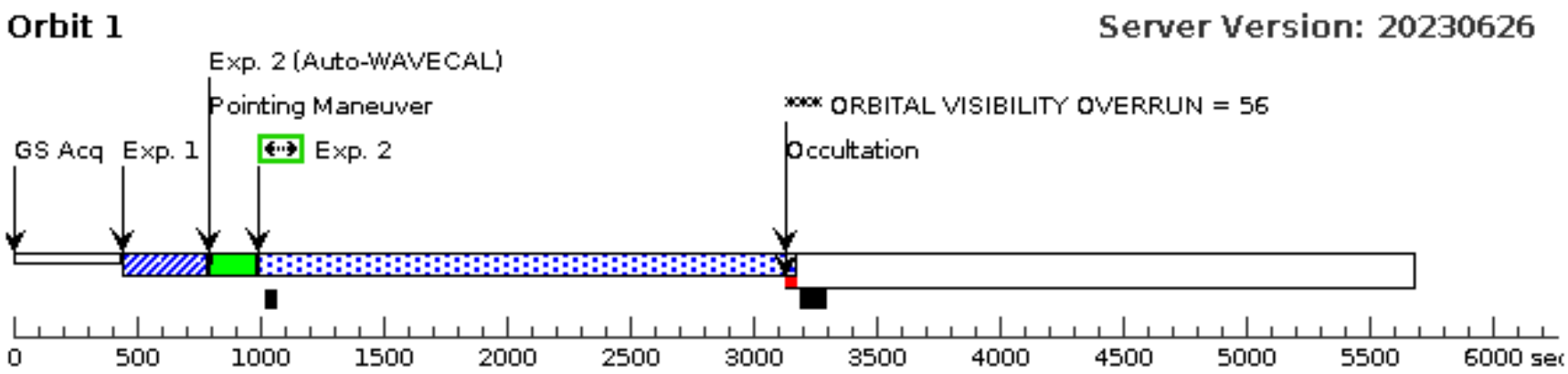
#	Name	Criteria	Description
(4)	TDE-TOO-4	UV-bright Tidal Disruption Event	

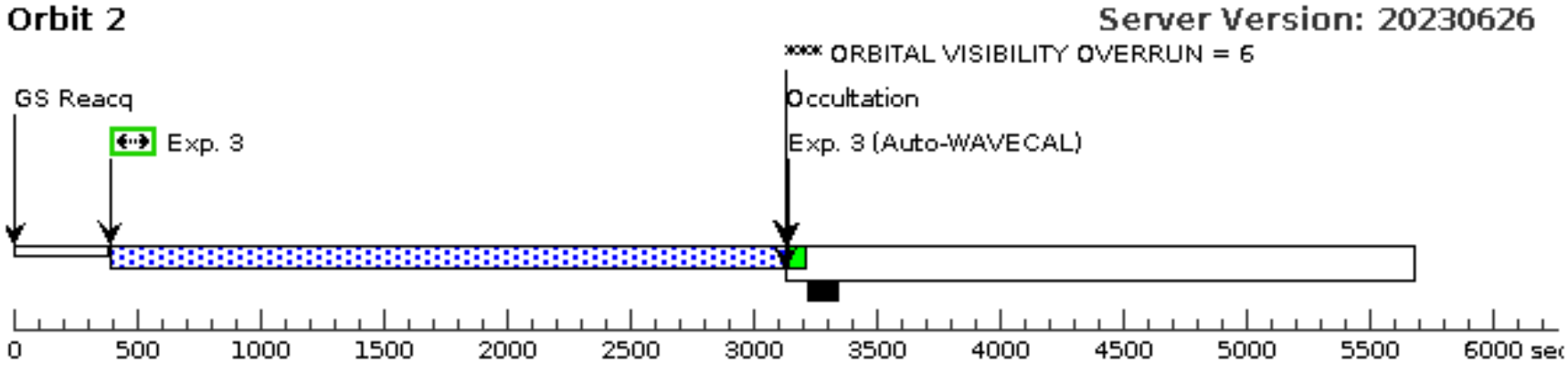
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

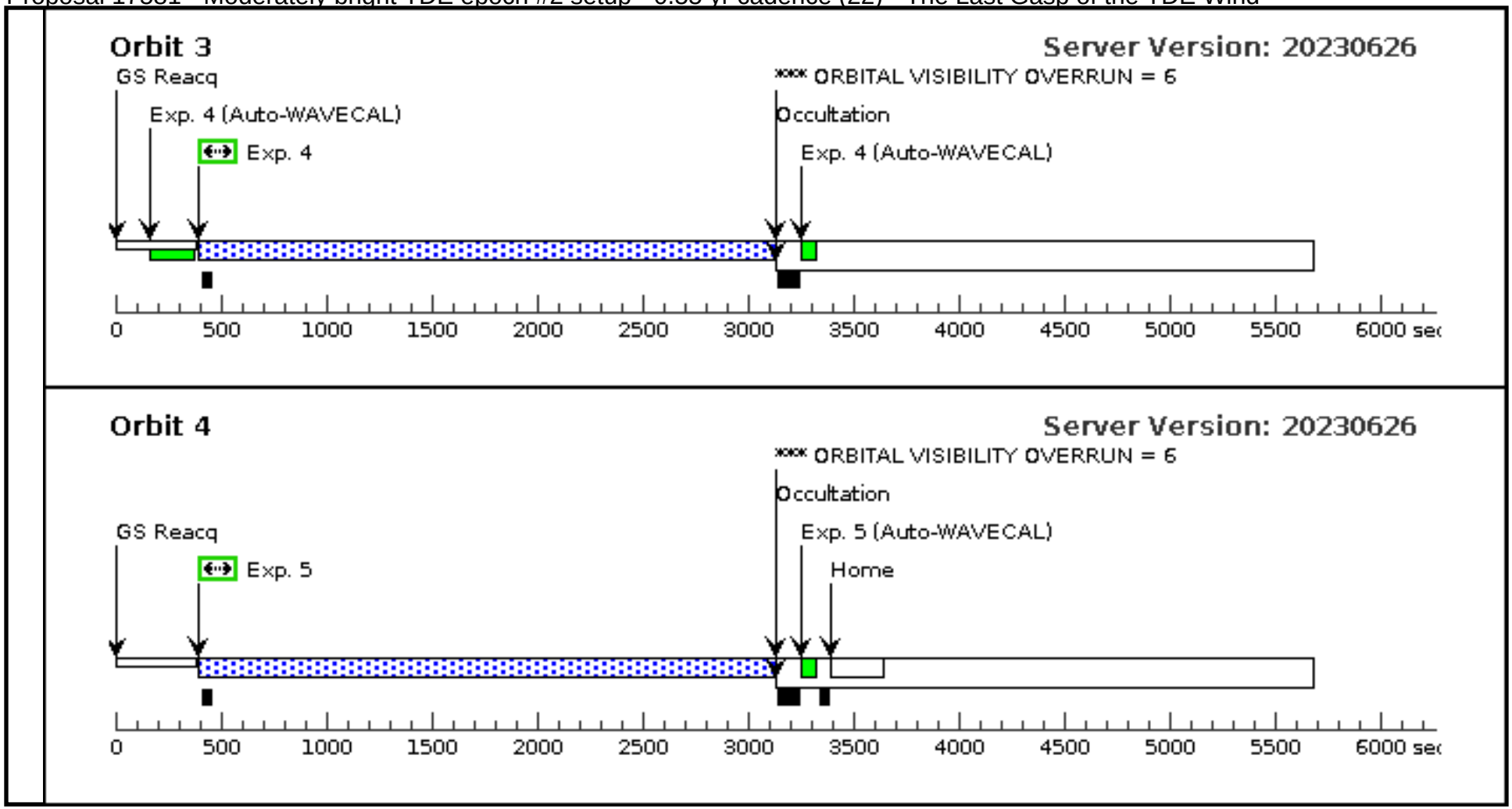
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(4) TDE-TOO-4	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(4) TDE-TOO-4	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(4) TDE-TOO-4	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(4) TDE-TOO-4	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(4) TDE-TOO-4	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20230626
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
**** ORBITAL VISIBILITY OVERRUN = 6
Occultation
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 6
Occultation
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Very bright TDE epoch #1 setup - 0.79 yr cadence (17) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is sufficiently bright that a neutral density filter is necessary for acquisition, and that TIME-TAG mode will be beneficial

Since this has 0.79 year cadence, it is followed by visit (18) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is very bright.

This setup will be triggered for a TDE which is bright enough to require a neutral density filter for acquisiton, and that TIME-TAG mode will be beneficial. In such a case, one orbit per grating may be sufficient for Epoch #1. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

The buffer times may also need to be increased.

Diagnostics

(Very bright TDE epoch #1 setup - 0.79 yr cadence (17)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #1 setup - 0.79 yr cadence (17)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

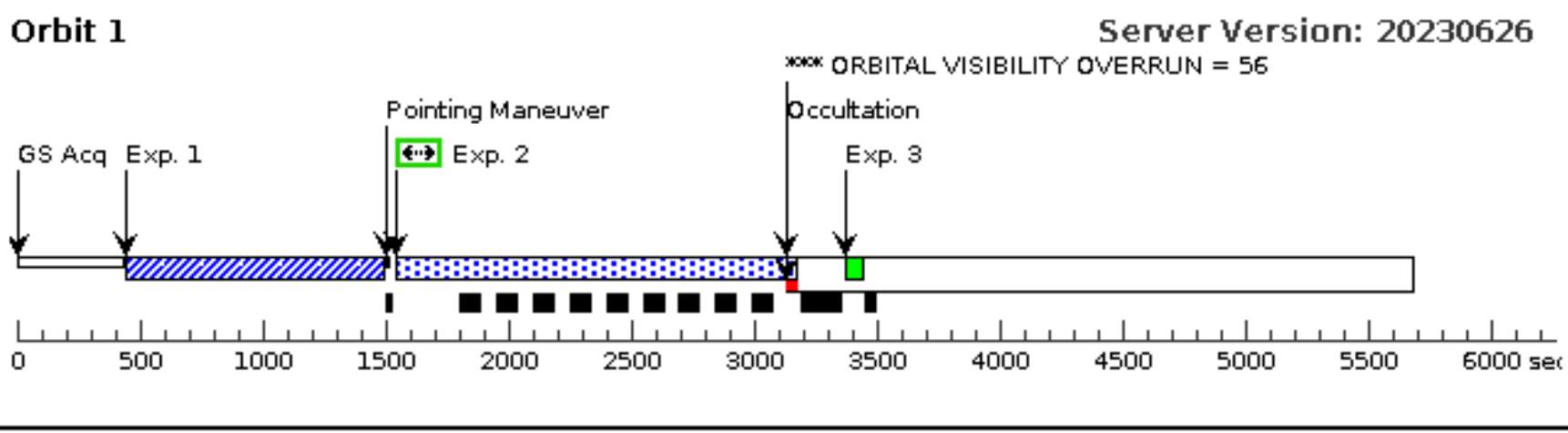
#	Name	Criteria	Description
(5)	TDE-TOO-5	UV-bright Tidal Disruption Event	

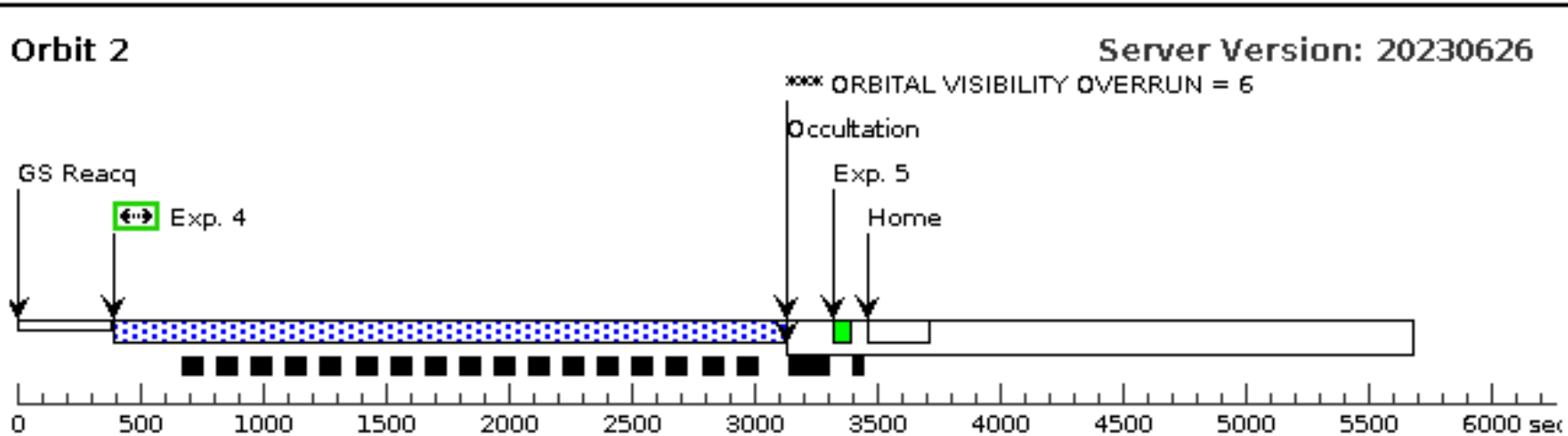
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Very bright TDE acquisition (STIS.ta.1523033)	(5) TDE-TOO-5	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			180 Secs (180 Secs) *[==>]*	*[1]*
2	Very bright TDE NUV spectrum (STIS.sp.1523057)	(5) TDE-TOO-5	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148; WAVECAL=NO			1300 Secs (1502 Secs) *[==>1502.0 Secs]*	*[1]*
3	Wavecal	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	*[1]*
4	Very bright TDE FUV spectrum (STIS.sp.1523058)	(5) TDE-TOO-5	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			1300 Secs (2581 Secs) *[==>2581.0 Secs]*	*[2]*
5	Wavecal	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	*[2]*

Orbit Structure





Visit

Proposal 17581, Very bright TDE epoch #2 setup - 0.79 yr cadence (18) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 17 BY 252 D TO 354 D; ON HOLD

Comments: This observation assumes the TDE is sufficiently bright that a neutral density filter is necessary for acquisition, and that TIME-TAG mode will be beneficial.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Timing requirements may need to be revised.

Buffer times may need to be increased.

Diagnostics

(Very bright TDE epoch #2 setup - 0.79 yr cadence (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 0.79 yr cadence (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 0.79 yr cadence (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 0.79 yr cadence (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Very bright TDE epoch #2 setup - 0.79 yr cadence (18)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Generic Targets

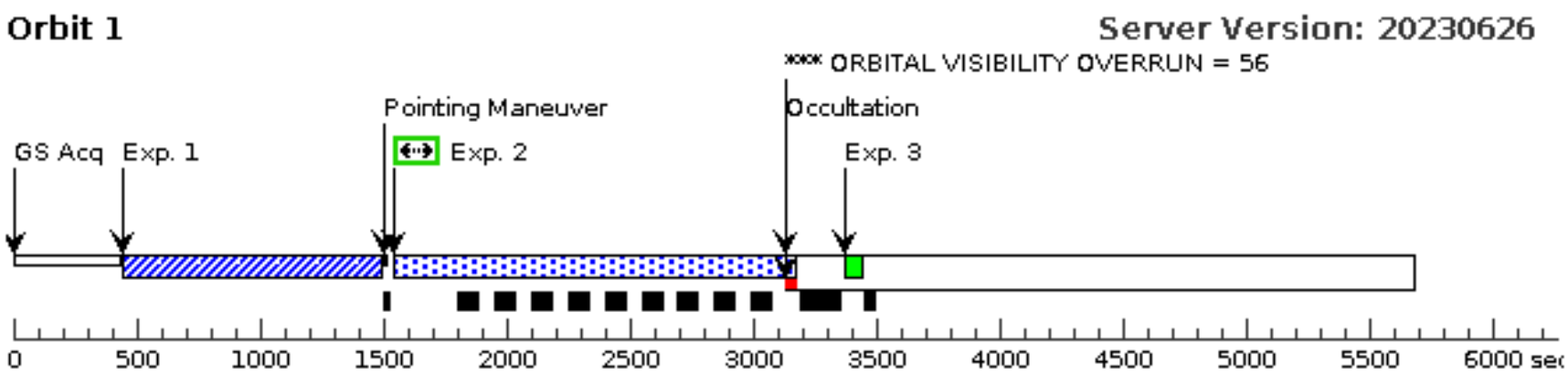
#	Name	Criteria	Description
(5)	TDE-TOO-5	UV-bright Tidal Disruption Event	

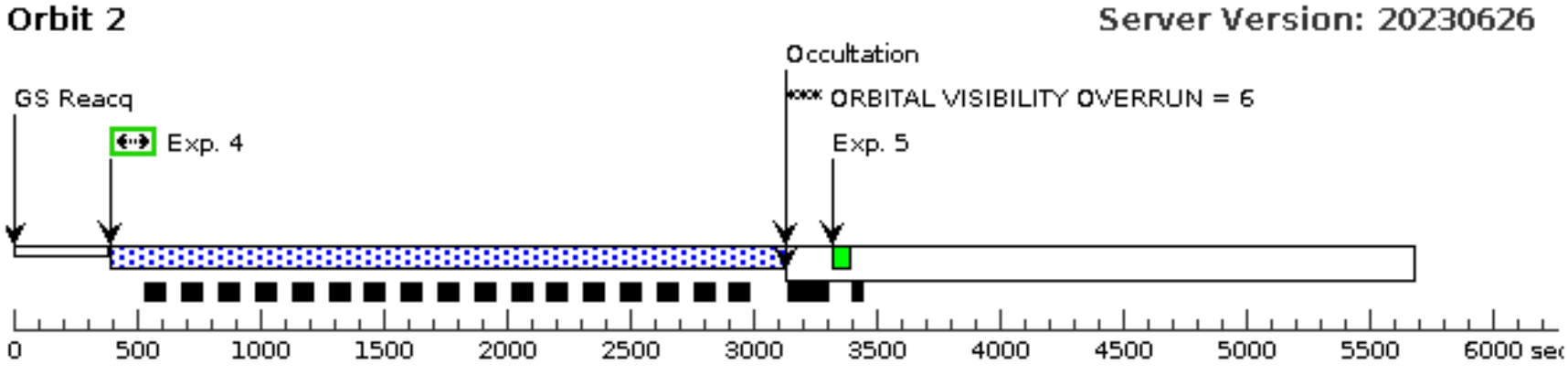
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

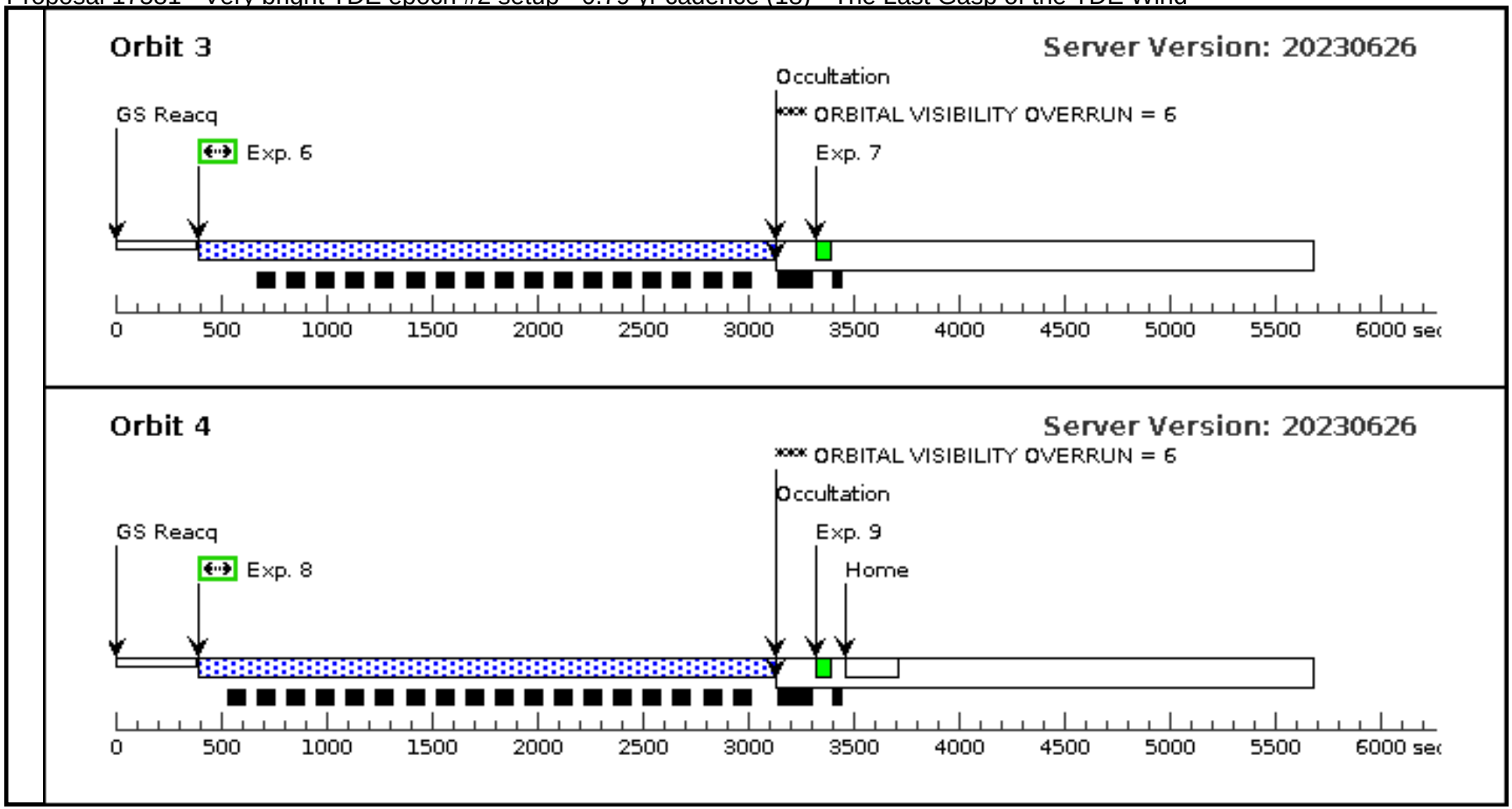
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Very bright TDE acquisition (STIS.ta.1523033)	(5) TDE-TOO-5	STIS/CCD, ACQ, F25ND3	MIRROR	DIFFUSE-CENTER=FLUX-CENTROID; ACQTYPE=DIFFUSE; CHECKBOX=13			180 Secs (180 Secs) *[==>]*	***[1]***
2	Very bright TDE NUV spectrum (STIS.sp.1523057)	(5) TDE-TOO-5	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148; WAVECAL=NO			1300 Secs (1502 Secs) *[==>1502.0 Secs]*	***[1]***
3	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[1]***
4	Very bright TDE NUV spectrum (STIS.sp.1523057)	(5) TDE-TOO-5	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=148			2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
5	STIS NUV WAVECAL	WAVE	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				*[==>]*	***[2]***
6	Very bright TDE FUV spectrum (STIS.sp.1523058)	(5) TDE-TOO-5	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			2500 Secs (2581 Secs) *[==>2581.0 Secs]*	***[3]***
7	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[3]***
8	Very bright TDE FUV spectrum (STIS.sp.1523058)	(5) TDE-TOO-5	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=141			2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***
9	STIS FUV WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				*[==>]*	***[4]***

Orbit Structure



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Exp. 6
Exp. 7
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1000
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2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 6
Occultation
GS Reacq
Exp. 9
Exp. 8
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #1 setup - 0.79 yr cadence (19) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 50.0D

Comments: This observation assumes the TDE is NOT bright enough for a strong filter or TIME-TAG mode.

Since this has 0.55 year cadence, it is followed by visit (20) for epoch #2

On Hold Comments: Target of opportunity.

Conditional on TOO properties as follow if target is less bright.

This setup will be triggered for a less-bright TDE which does not warrant a strong acquisition filter or TIME-TAG mode. Choice of target is somewhat flexible - we expect a bright (absolute V<-18) transient consistent with a galactic nucleus at z<0.2, which may be refined by optical spectroscopy (notable TDE characteristics include broad Balmer, He II or Bowen lines) or X-rays (e.g. supersoft quasi-blackbody spectrum), but there is enough variety in possible distinctive characteristics that a narrow definition is not practical. We expect to confirm UV brightness and MAMA safety via Swift or other UV instruments (eg XMM if necessary).

Acquisition time may need to be modified.

Diagnostics

(Moderately bright TDE epoch #1 setup - 0.79 yr cadence (19)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.79 yr cadence (19)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.79 yr cadence (19)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #1 setup - 0.79 yr cadence (19)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

#	Name	Criteria	Description
(5)	TDE-TOO-5	UV-bright Tidal Disruption Event	

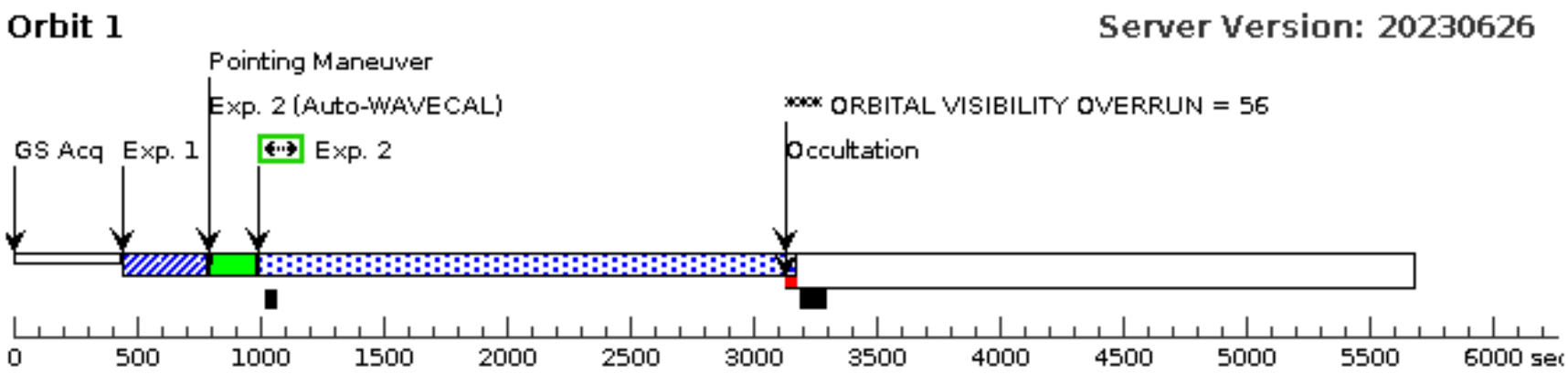
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

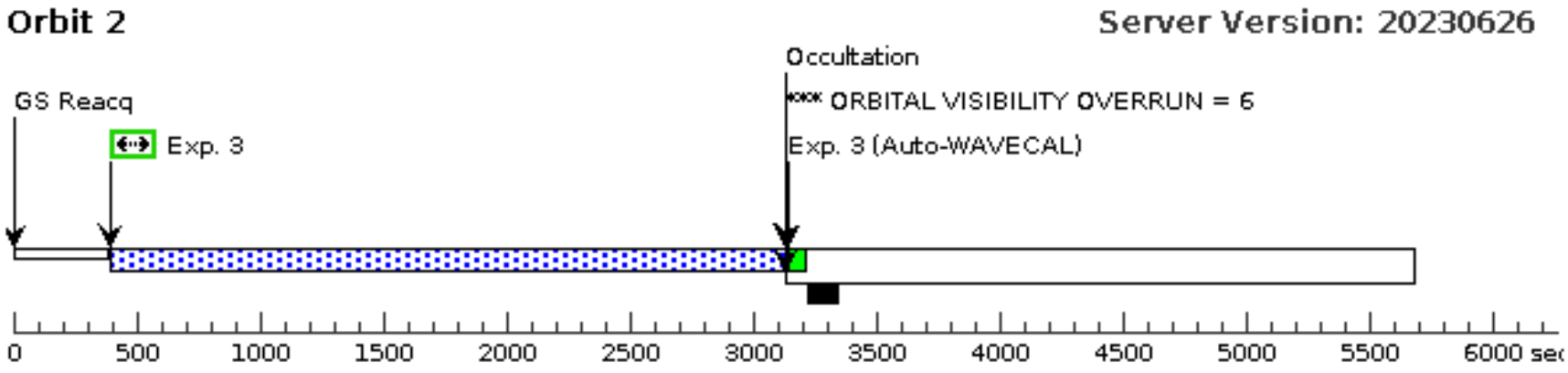
Proposal 17581 - Moderately bright TDE epoch #1 setup - 0.79 yr cadence (19) - The Last Gasp of the TDE Wind

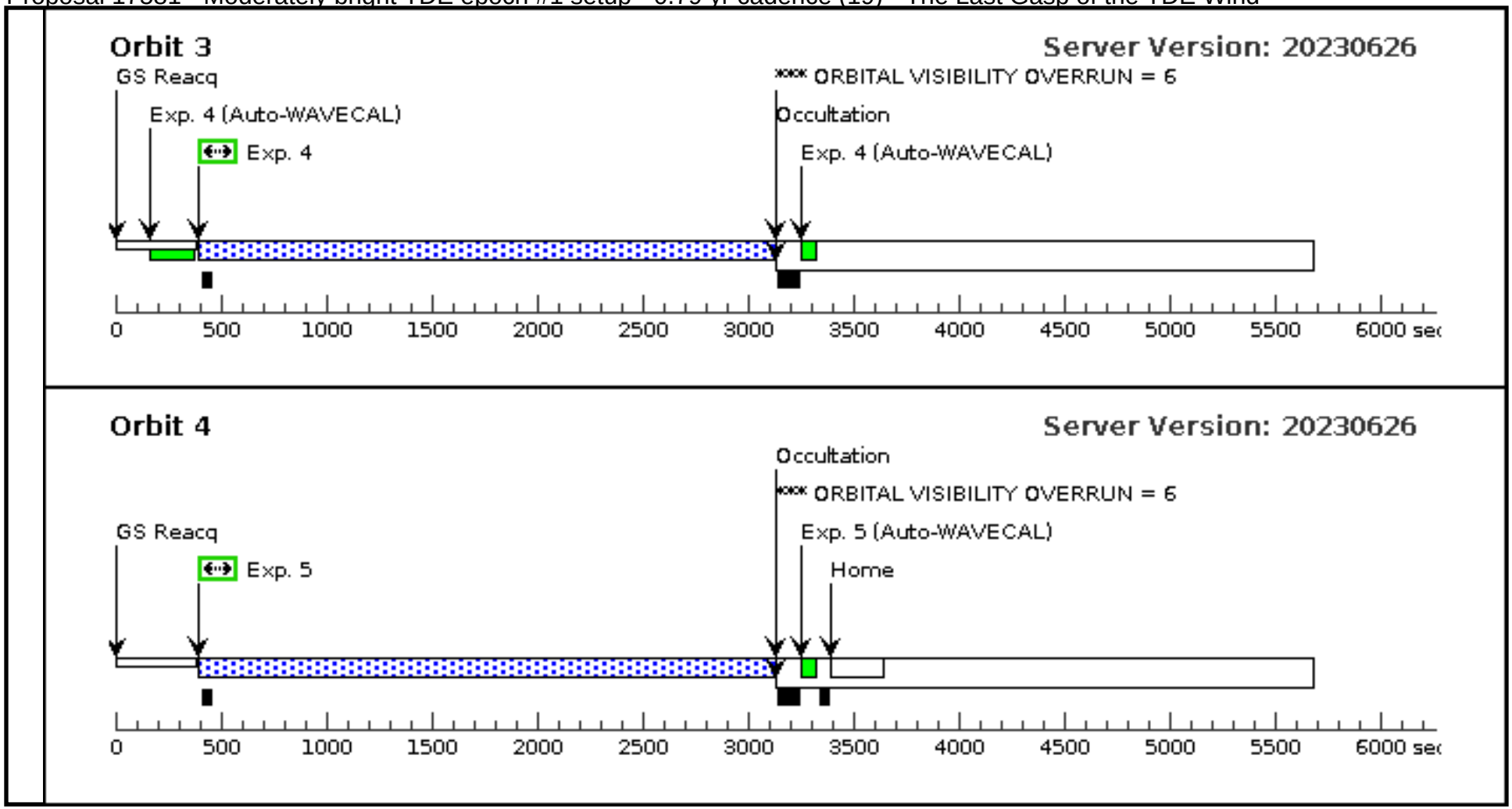
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(5) TDE-TOO-5	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(5) TDE-TOO-5	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(5) TDE-TOO-5	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(5) TDE-TOO-5	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				1300 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(5) TDE-TOO-5	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure



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Server Version: 20230626
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
*** ORBITAL VISIBILITY OVERRUN = 6
Occultation
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 6
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, Moderately bright TDE epoch #2 setup - 0.79 yr cadence (20) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 19 BY 252 D TO 354 D; ON HOLD

Comments: This observation assumes the TDE is NOT sufficiently bright for a strong filter or TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" will be estimated from archival photometry of the host galaxy (or more reliable archival/published results as available) and consequent estimates of the associated black hole mass when epoch #1 is triggered, so the timing requirements may need to be refined. Depending upon the target, it may also be possible to expand the window if visibility becomes an issue. Buffer times may also need to be increased.

On Hold Comments: Conditional on confirmation that the timing requirements are appropriate for the observed host galaxy properties or light curve decay rate. Acquisition time and timing requirements may need to be revised.

Diagnostics

(Moderately bright TDE epoch #2 setup - 0.79 yr cadence (20)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.79 yr cadence (20)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.79 yr cadence (20)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Moderately bright TDE epoch #2 setup - 0.79 yr cadence (20)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Generic Targets

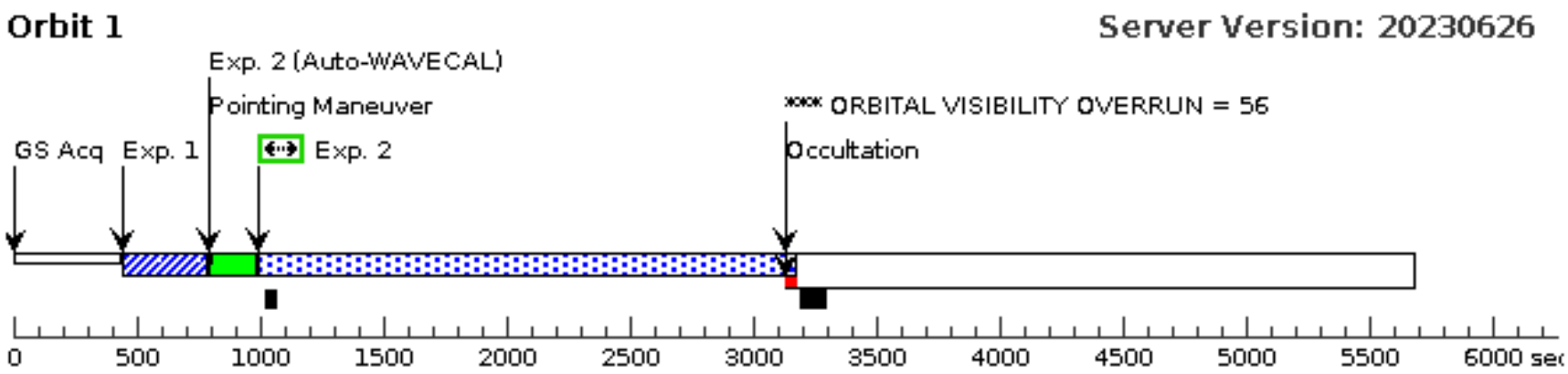
#	Name	Criteria	Description
(5)	TDE-TOO-5	UV-bright Tidal Disruption Event	

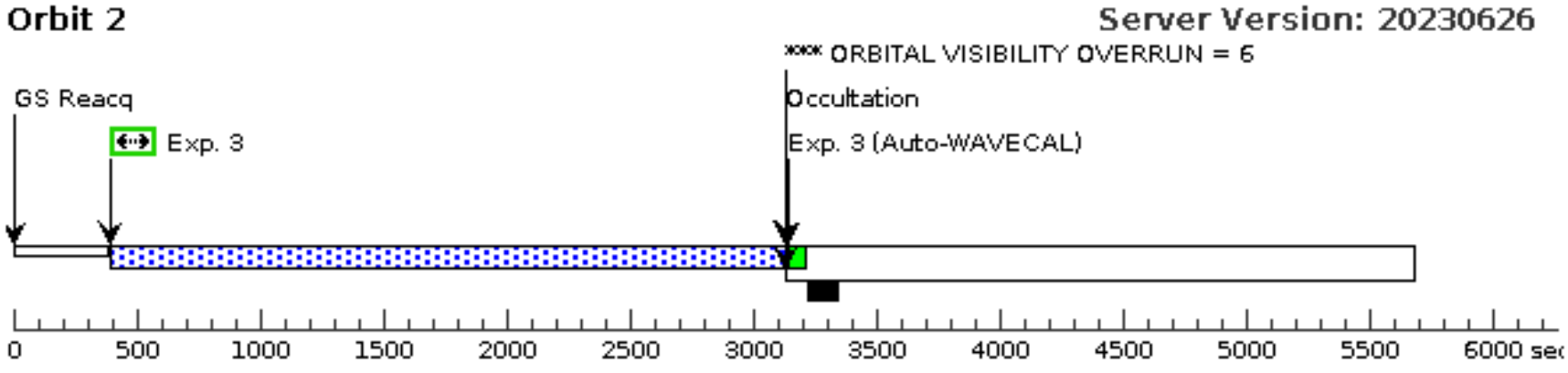
Comments: Bright optical/UV flare consistent with the location of a galactic nucleus (and consistent with common TDE photometric or spectroscopic signatures such as broad lines from Balmer, He II or Bowen transitions, or supersoft X-ray spectrum). We will confirm useful UV brightness e.g. via Swift. Primary selection may be from ATels or follow-up of optical or X-ray surveys.

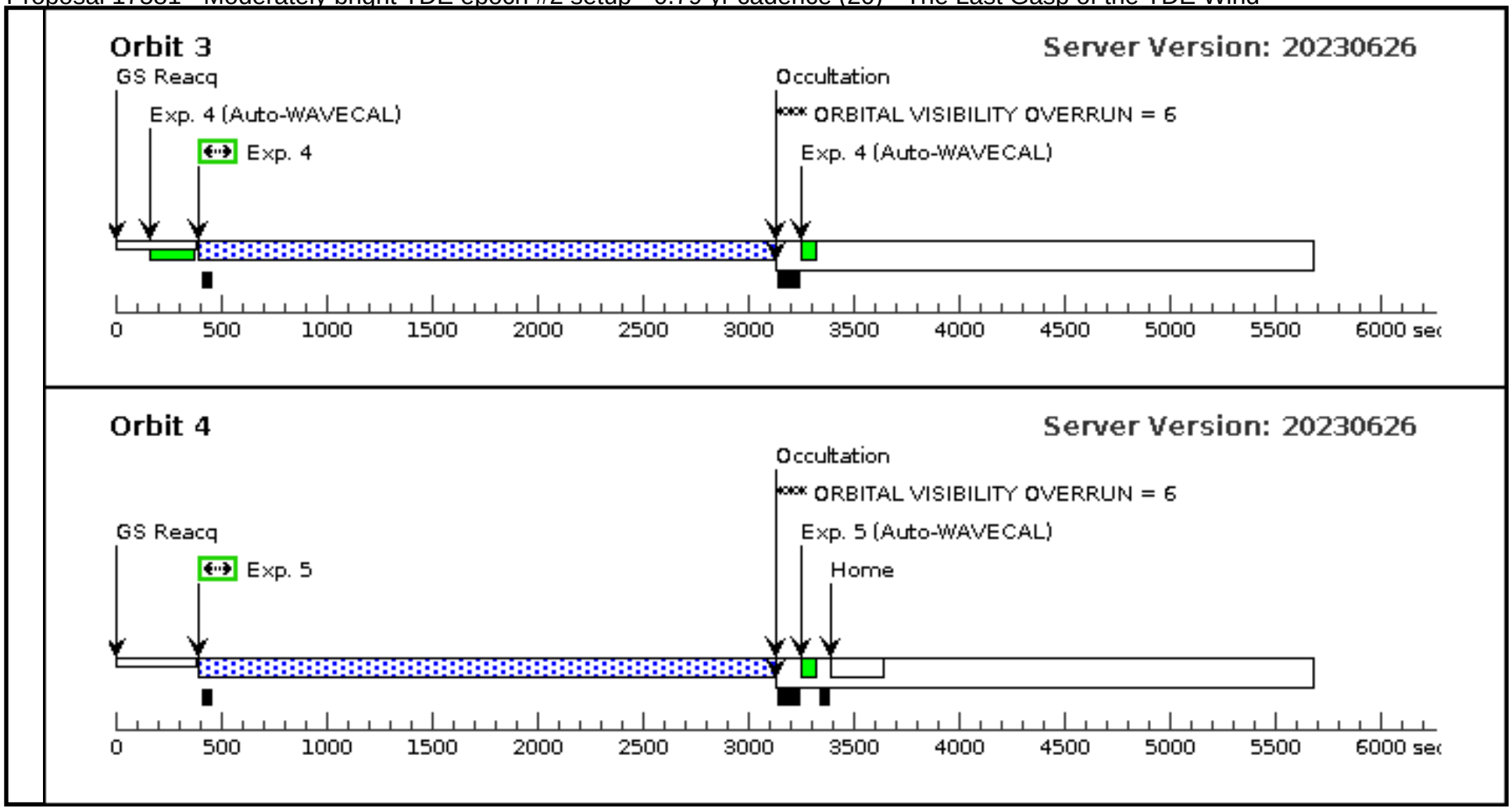
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Moderately bright TDE acquisition (STIS.ta.1523424)	(5) TDE-TOO-5	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=DIFFUSE; CHECKBOX=13.0; DIFFUSE-CENTER=FLUX-CENTROID			15 Secs (15 Secs) *[==>]*	***[1]***
2	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(5) TDE-TOO-5	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				1300 Secs (2165 Secs) *[==>2165.0 Secs]*	***[1]***
3	Moderately bright TDE NUV spectrum (STIS.sp.1523427)	(5) TDE-TOO-5	STIS/NUV-MAMA, ACCUM, 52X0.2	G230L 2376 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[2]***
4	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(5) TDE-TOO-5	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[3]***
5	Moderately bright TDE FUV spectrum (STIS.sp.1523425)	(5) TDE-TOO-5	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A				2500 Secs (2722 Secs) *[==>2722.0 Secs]*	***[4]***

Orbit Structure






Orbit 3
Server Version: 20230626
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Occultation
*** ORBITAL VISIBILITY OVERRUN = 6
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 6
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022hvp epoch #1 setup - 0.41 yr cadence (23) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: ON HOLD ; TOO RESPONSE TIME 18.0D

Comments: This visit will use TIME-TAG mode.

It is followed by visit (24) for epoch #2

On Hold Comments: AT2022hvp (https://www.wis-tns.org/object/2022dsb) is ideal for this program. It has an optical (ZTF) trigger, nuclear location, probable TDE emission lines, and Swift UV detection.

From the SED we estimate the black hole mass to be 13e7 solar masses, so we expect the Eddington timescale to be ~302 days, so we will sample UV spectroscopy 3x over that period. Our primary constraint is orbital visibility, which is close to the timescale we are interested in.

Diagnostics

(AT2022hvp epoch #1 setup - 0.41 yr cadence (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #1 setup - 0.41 yr cadence (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #1 setup - 0.41 yr cadence (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #1 setup - 0.41 yr cadence (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

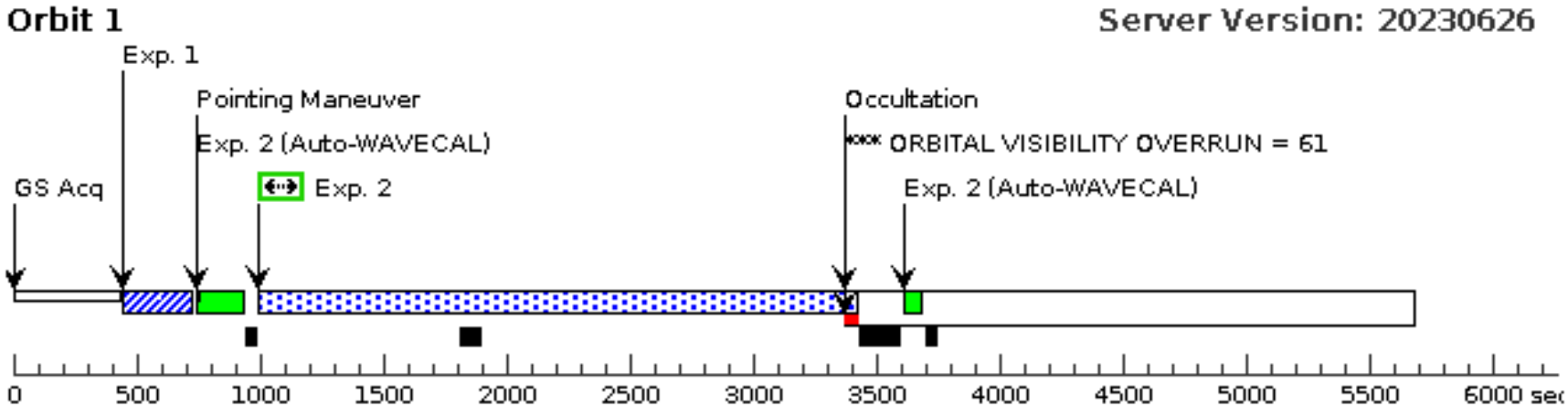
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	AT2022HVP	RA: 09 54 45.2508 (148.6885450d) Dec: +55 26 25.34 (55.44037d) Equinox: J2000		V=16.7+/-0.25	Reference Frame: ICRS

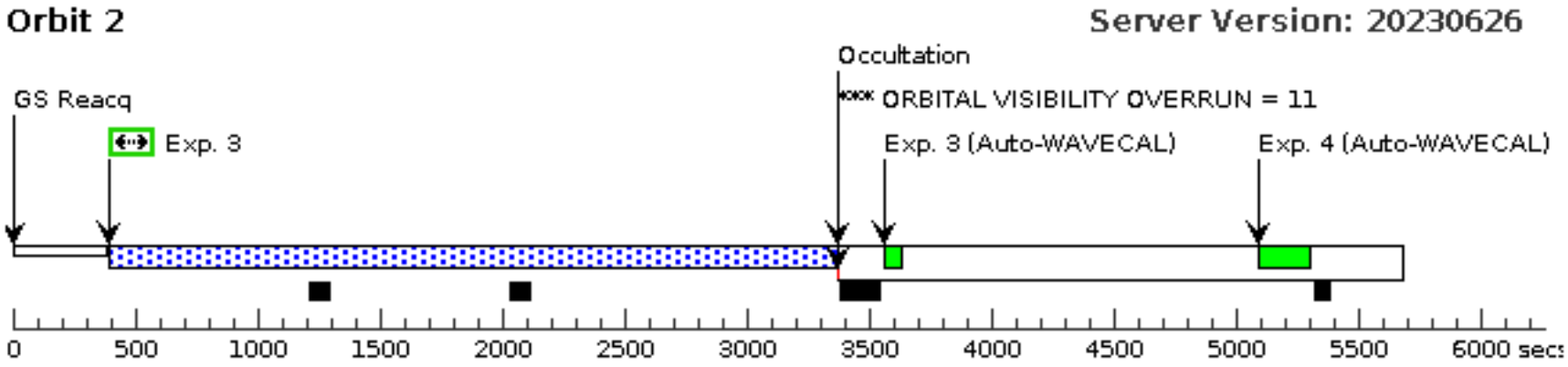
Comments: Transient in decay, believed to be a TDE. V is converted from ZTF/LASAIR g-band 59715.2
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

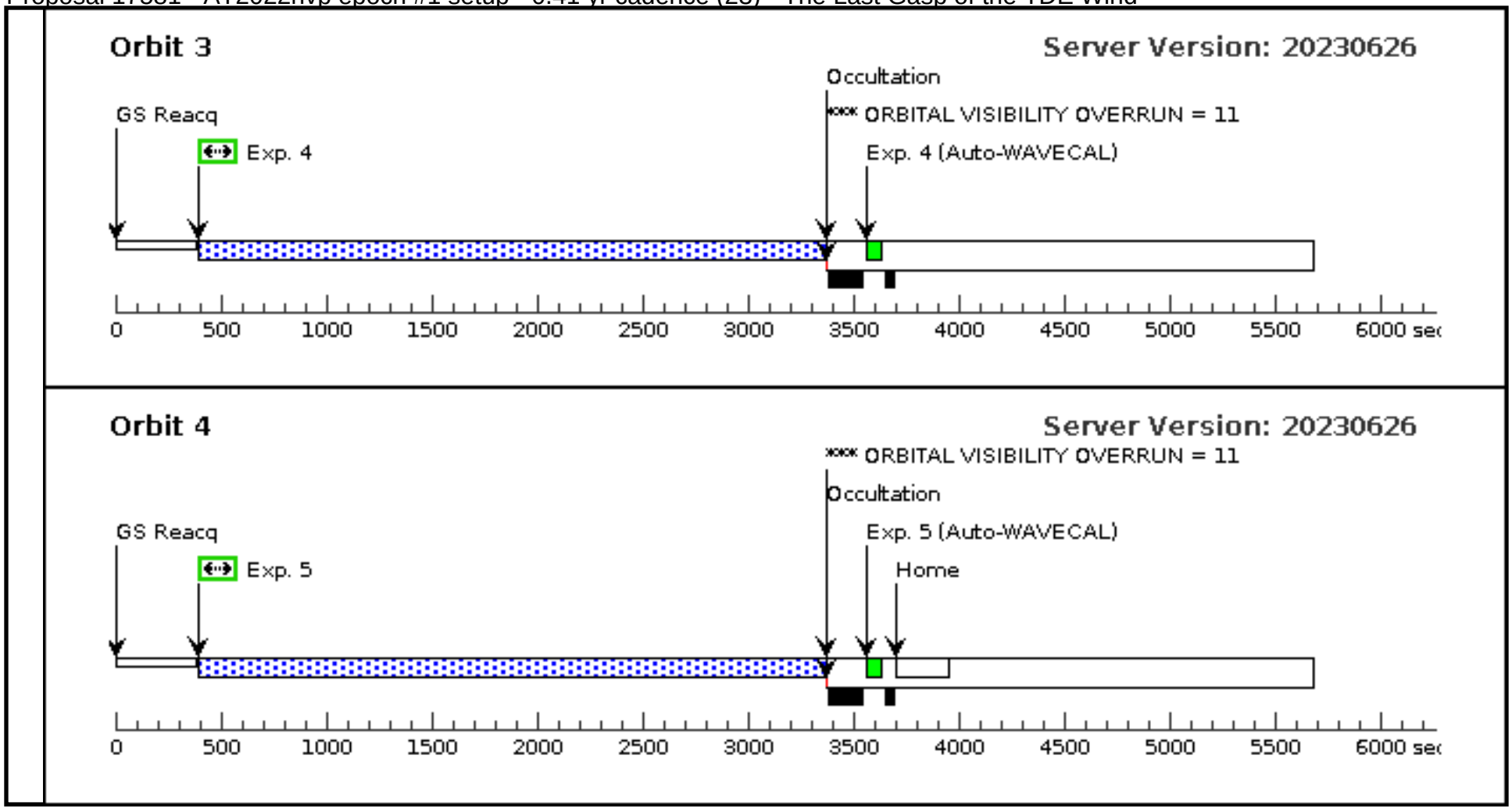
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022hvp acquisition (STIS.ta.1743705)	(9) AT2022HVP	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			10 Secs (10 Secs) *[==>]*	*[1]*
2	AT2022hvp NUV spectrum (STIS.sp.1749632)	(9) AT2022HVP	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=821			2412 Secs (2412 Secs) *[==>]*	*[1]*
3	AT2022hvp NUV spectrum (STIS.sp.1749633)	(9) AT2022HVP	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=821			2969 Secs (2969 Secs) *[==>]*	*[2]*
4	AT2022hvp FUV spectrum (STIS.sp.1749634)	(9) AT2022HVP	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=6000			2969 Secs (2969 Secs) *[==>]*	*[3]*
5	AT2022hvp FUV spectrum (STIS.sp.1749634)	(9) AT2022HVP	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=6000			2969 Secs (2969 Secs) *[==>]*	*[4]*

Orbit Structure






Orbit 3
Server Version: 20230626
Occultation
GS Reacq
**** ORBITAL VISIBILITY OVERRUN = 11
Exp. 4
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 11
Occultation
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022hvp epoch #2 setup - 0.41 yr cadence (24) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 23 BY 137 D TO 174 D; ON HOLD FOR 23

Comments: This visit will use TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" (Lodato & Rossi 2011). Based on the SED we would estimate this to be ~302 days, over which we would observe the target 3 times. We may need to be flexible here due to limited observing windows.

On Hold Comments: Epoch #2 in a sequence triggered by TOO (23) AT2022hvp

Diagnostics

(AT2022hvp epoch #2 setup - 0.41 yr cadence (24)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #2 setup - 0.41 yr cadence (24)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #2 setup - 0.41 yr cadence (24)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #2 setup - 0.41 yr cadence (24)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

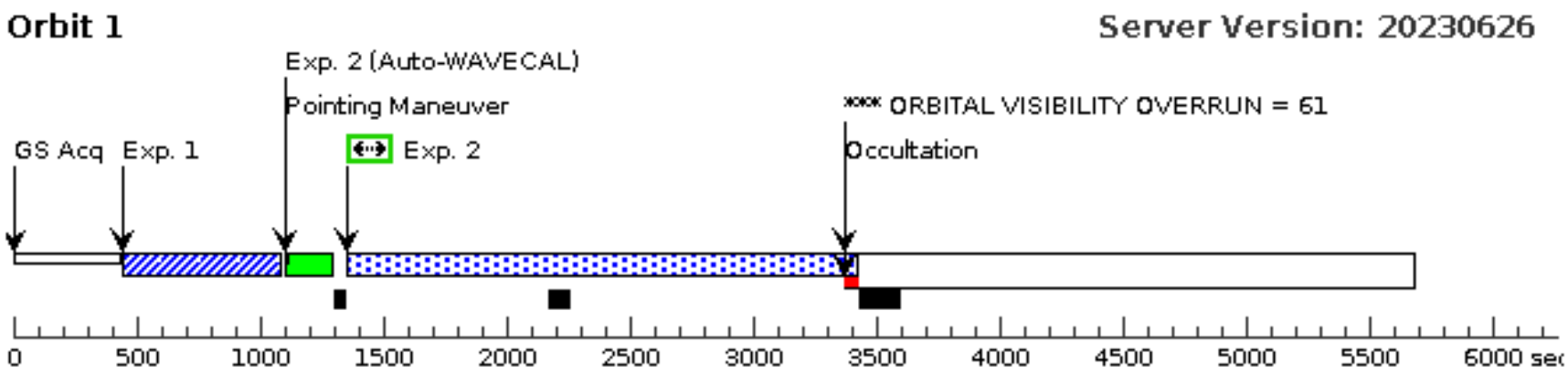
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	AT2022HVP	RA: 09 54 45.2508 (148.6885450d) Dec: +55 26 25.34 (55.44037d) Equinox: J2000		V=16.7+/-0.25	Reference Frame: ICRS

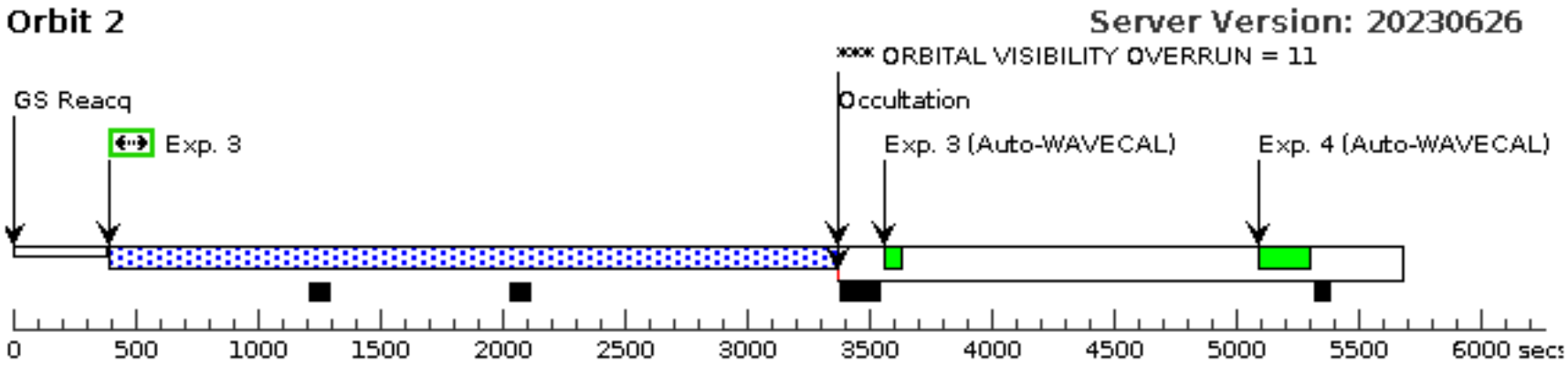
Comments: Transient in decay, believed to be a TDE. V is converted from ZTF/LASAIR g-band 59715.2
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

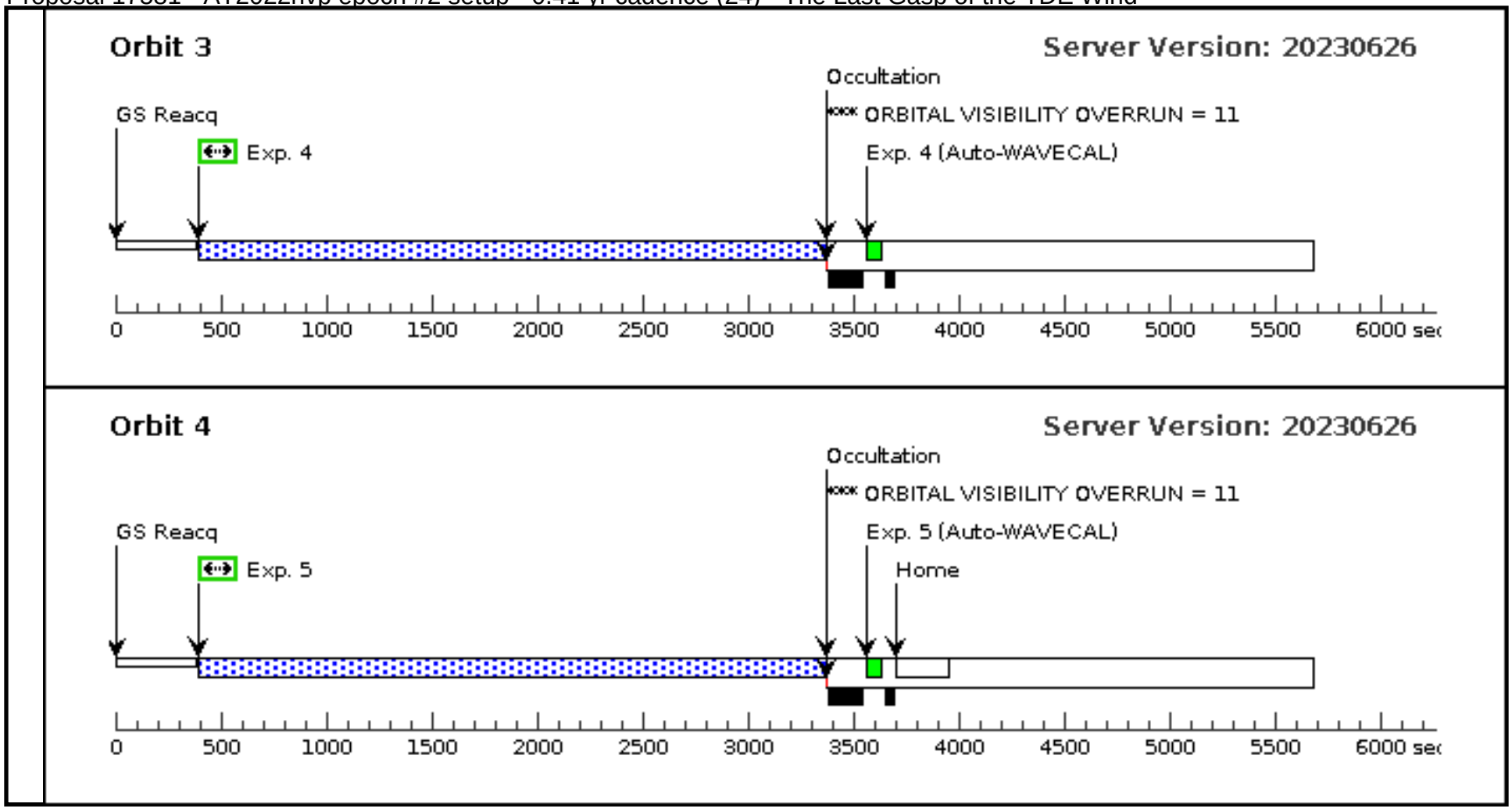
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022hvp acquisition (STIS.ta.1829700)	(9) AT2022HVP	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			100 Secs (100 Secs) *[==>]*	*[1]*
2	AT2022hvp NUV spectrum (STIS.sp.1749632)	(9) AT2022HVP	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=821			2052 Secs (2052 Secs) *[==>]*	*[1]*
3	AT2022hvp NUV spectrum (STIS.sp.1749633)	(9) AT2022HVP	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=821			2969 Secs (2969 Secs) *[==>]*	*[2]*
4	AT2022hvp FUV spectrum (STIS.sp.1749634)	(9) AT2022HVP	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=6000			2969 Secs (2969 Secs) *[==>]*	*[3]*
5	AT2022hvp FUV spectrum (STIS.sp.1749634)	(9) AT2022HVP	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=6000			2969 Secs (2969 Secs) *[==>]*	*[4]*

Orbit Structure






Orbit 3
Server Version: 20230626
Occultation
GS Reacq
*** ORBITAL VISIBILITY OVERRUN = 11
Exp. 4
Exp. 4 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec
Orbit 4
Server Version: 20230626
Occultation
*** ORBITAL VISIBILITY OVERRUN = 11
GS Reacq
Exp. 5 (Auto-WAVECAL)
Exp. 5
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022hvp epoch #3 NUV setup - 0.41 yr cadence (25) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 24 BY 100 D TO 200 D; GROUP 25,26 WITHIN 5D; ON HOLD FOR 24

Comments: This visit will use TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" (Lodato & Rossi 2011). Based on the SED we would estimate this to be ~302 days, over which we would observe the target 3 times. We may need to be flexible here due to limited observing windows.

On Hold Comments: Epoch 3 in a sequence triggered by TOO (23) AT2022hvp

Diagnostics

(AT2022hvp epoch #3 NUV setup - 0.41 yr cadence (25)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #3 NUV setup - 0.41 yr cadence (25)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #3 NUV setup - 0.41 yr cadence (25)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

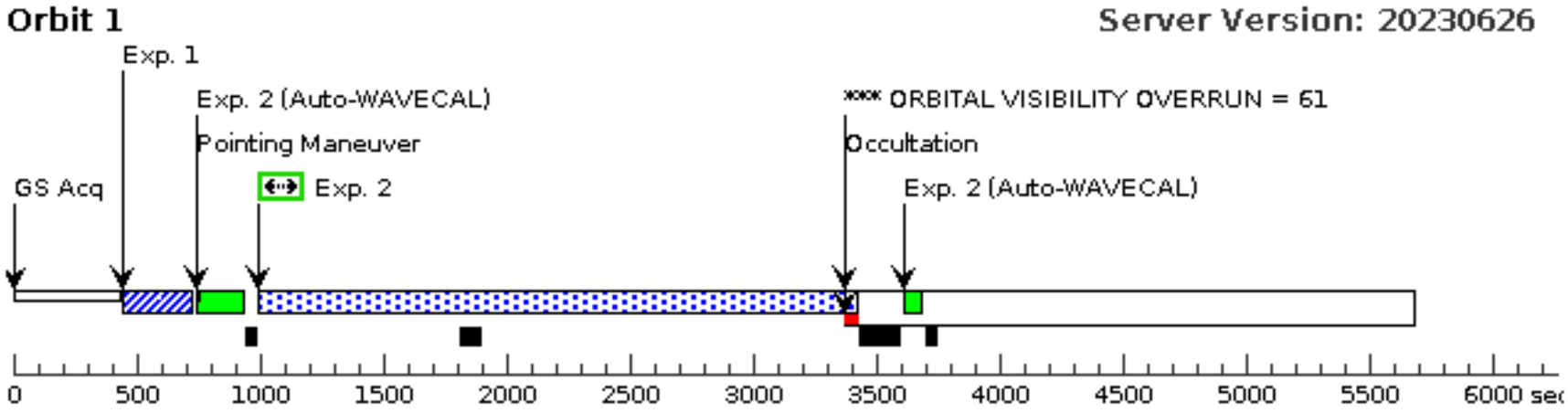
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	AT2022HVP	RA: 09 54 45.2508 (148.6885450d) Dec: +55 26 25.34 (55.44037d) Equinox: J2000		V=16.7+/-0.25	Reference Frame: ICRS

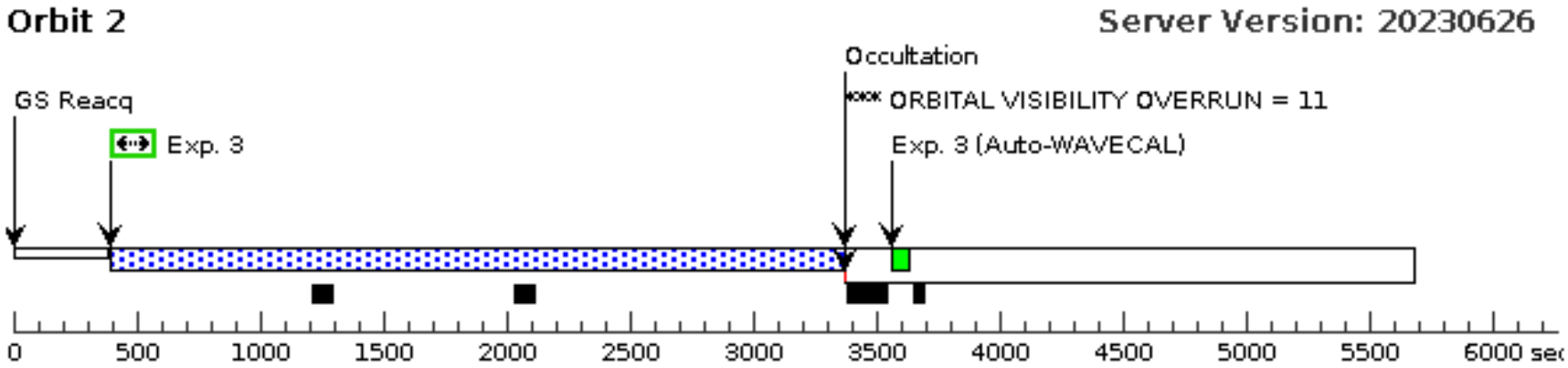
Comments: Transient in decay, believed to be a TDE. V is converted from ZTF/LASAIR g-band 59715.2
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

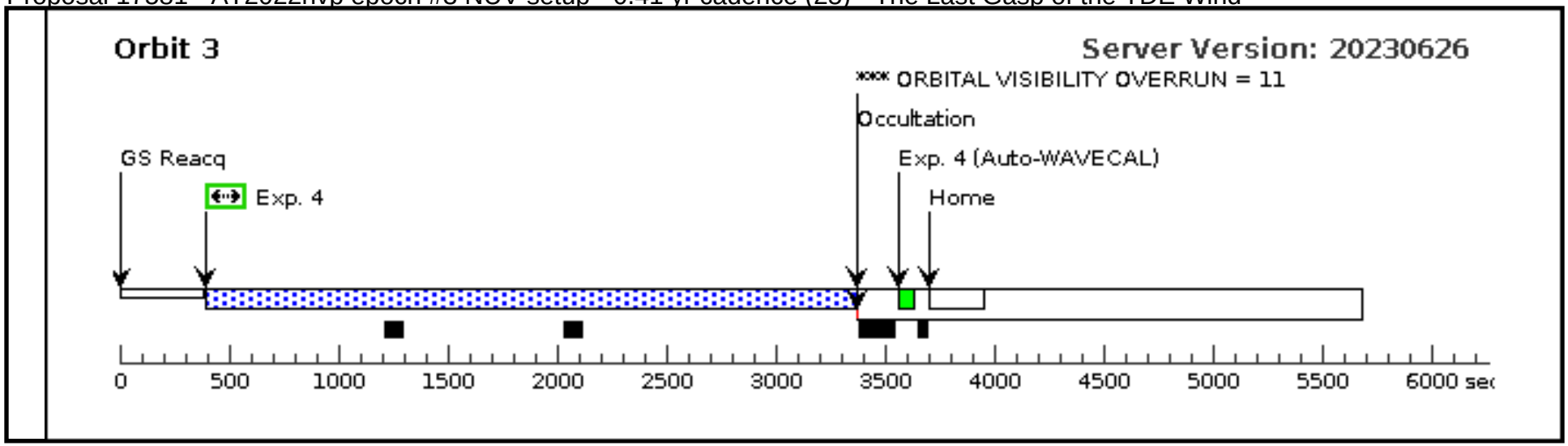
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022hvp acquisition (STIS.ta.1743705)	(9) AT2022HVP	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			10 Secs (10 Secs) *[==>]*	***[1]***
2	AT2022hvp NUV spectrum (STIS.sp.1749632)	(9) AT2022HVP	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=821			2412 Secs (2412 Secs) *[==>]*	***[1]***
3	AT2022hvp NUV spectrum (STIS.sp.1749633)	(9) AT2022HVP	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=821			2969 Secs (2969 Secs) *[==>]*	***[2]***
4	AT2022hvp NUV spectrum (STIS.sp.1749633)	(9) AT2022HVP	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=821			2969 Secs (2969 Secs) *[==>]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20230626
**** ORBITAL VISIBILITY OVERRUN = 11
Occultation
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17581, AT2022hvp epoch #3 FUV setup - 0.41 yr cadence (26) Wed Aug 30 22:00:54 GMT 2023

Diagnostic Status: Warning

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

Special Requirements: AFTER 24 BY 100 D TO 200 D; GROUP 26,25 WITHIN 5D; ON HOLD FOR 24

Comments: This visit will use TIME-TAG mode.

"Typical" TDEs for this program can expect epoch #2 after ~1 year and epoch #3 after ~2 years. The relevant "Eddington timescale" (Lodato & Rossi 2011). Based on the SED we would estimate this to be ~302 days, over which we would observe the target 3 times. We may need to be flexible here due to limited observing windows.

On Hold Comments: Epoch 3 in a sequence triggered by TOO (23) AT2022hvp

Diagnostics

(AT2022hvp epoch #3 FUV setup - 0.41 yr cadence (26)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #3 FUV setup - 0.41 yr cadence (26)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(AT2022hvp epoch #3 FUV setup - 0.41 yr cadence (26)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

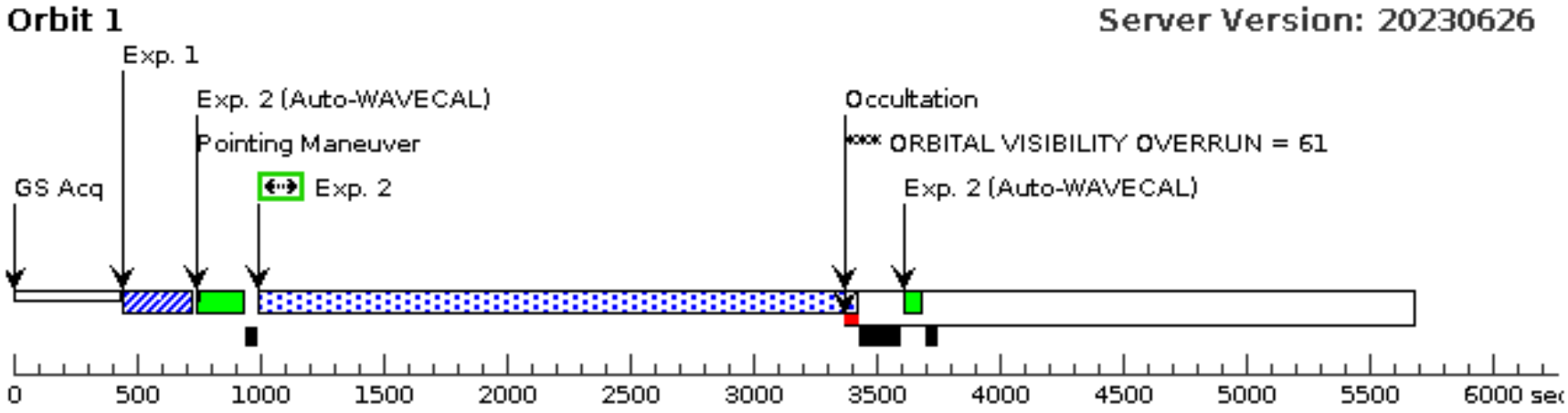
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	AT2022HVP	RA: 09 54 45.2508 (148.6885450d) Dec: +55 26 25.34 (55.44037d) Equinox: J2000		V=16.7+/-0.25	Reference Frame: ICRS

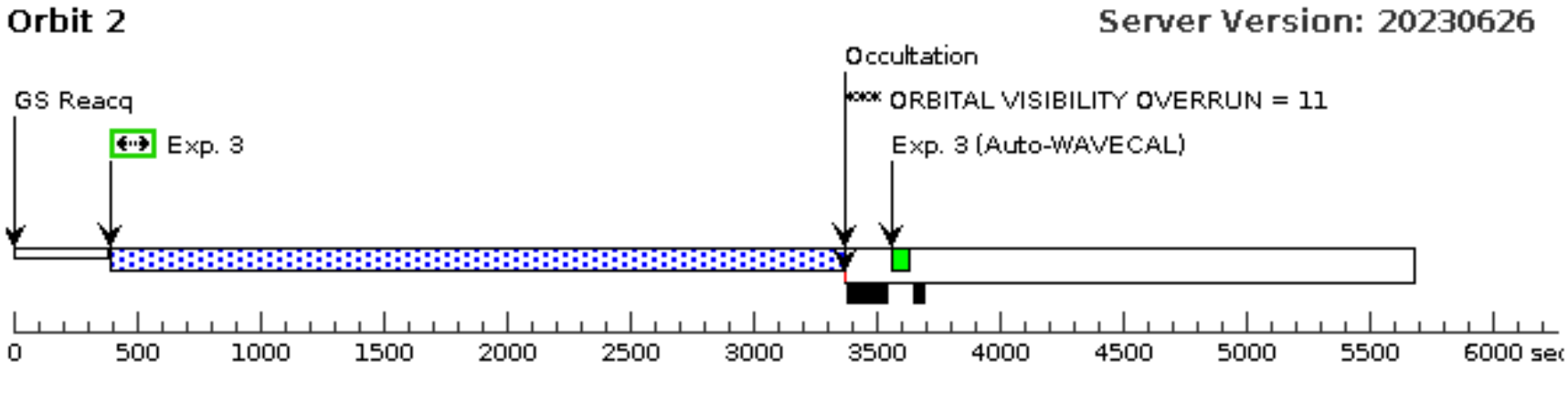
Comments: Transient in decay, believed to be a TDE. V is converted from ZTF/LASAIR g-band 59715.2
Category=GALAXY
Description=[ACCRETION DISK, NUCLEUS, WIND]

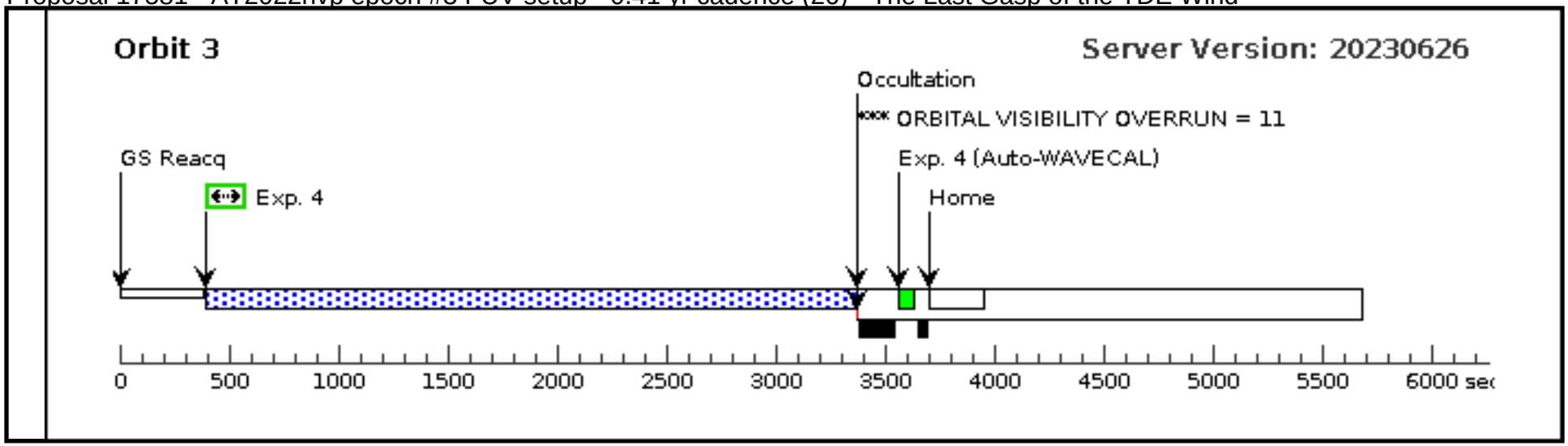
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	AT2022hvp acquisition (STIS.ta.1743705)	(9) AT2022HVP	STIS/CCD, ACQ, 50CCD	MIRROR	ACQTYPE=POINT			10 Secs (10 Secs) *[==>]*	***[1]***
2	AT2022hvp FUV spectrum (STIS.sp.1749634)	(9) AT2022HVP	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=6000			2412 Secs (2412 Secs) *[==>]*	***[1]***
3	AT2022hvp FUV spectrum (STIS.sp.1749634)	(9) AT2022HVP	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=6000			2969 Secs (2969 Secs) *[==>]*	***[2]***
4	AT2022hvp FUV spectrum (STIS.sp.1749634)	(9) AT2022HVP	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=6000			2969 Secs (2969 Secs) *[==>]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20230626
Occultation
**** ORBITAL VISIBILITY OVERRUN = 11
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec