18397 - Testing The Refractory Sulfur Reservoir Hypothesis with the Next Interstellar Object

Cycle: 34, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:43.0	yes
05	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:44.0	yes
02	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:44.0	yes
03	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:44.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
04	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:45.0	yes
06	(1) ISO-4I	STIS/CCD STIS/NUV-MAMA	1	27-Aug-2026 14:00:45.0	yes
07	(1) ISO-4I	STIS/CCD STIS/NUV-MAMA	1	27-Aug-2026 14:00:46.0	yes
08	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:46.0	yes
09	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:47.0	yes
10	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:47.0	yes
11	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:47.0	yes
12	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:47.0	yes
13	(1) ISO-4I	STIS/CCD STIS/NUV-MAMA	1	27-Aug-2026 14:00:48.0	yes
14	(1) ISO-4I	STIS/CCD STIS/NUV-MAMA	1	27-Aug-2026 14:00:49.0	yes
15	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:49.0	yes
16	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:49.0	yes
17	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:49.0	yes
18	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:50.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
19	(1) ISO-4I	COS/FUV COS/NUV	1	27-Aug-2026 14:00:50.0	yes
20	(1) ISO-4I	STIS/CCD STIS/NUV-MAMA	1	27-Aug-2026 14:00:51.0	yes
21	(1) ISO-4I	STIS/CCD STIS/NUV-MAMA	1	27-Aug-2026 14:00:51.0	yes

21 Total Orbits Used

ABSTRACT

Comets are the leftovers of the era of solar system formation and, as such contain some of the most primitive materials available for study. Interstellar comets allow us to probe the volatile and organic composition of a protoplanetary disk's cold midplane, where sub-mm and IR observations cannot penetrate. Within those disks, sulfur reservoirs are currently a major source of interest in the astrophysics community as less than 0.1% of the cosmic abundance of sulfur can be traced in gas species. Recent studies imply that the missing sulfur is trapped in refractory components, but which minerals are not yet clear. Ejected icy planetesimals offer unique opportunities to investigate sulfur-bearing species that would be locked in ice or dust in the midplane of these protoplanetary disks, revealed by an interstellar object's heating as it enters our solar system. With the first light of LSST it is highly anticipated that several more will be discovered in the next few years. The time domain observations measured with HST COS and JWST during the apparition of 2I/Borisov and 3I/ATLAS resulted in a more complete picture of the chemical composition of those volatiles present in another planetary system, but did not provide conclusive results on sulfur-bearing species. We propose a Target of Opportunity program to observe the next active interstellar object, which has yet to be discovered. We will quantify its CO, CS, S2, and atomic sulfur reservoirs, a combination of species that is unique to HST's far-ultraviolet (FUV) capability, and measure the sulfur-to-oxygen ratio while providing unparalleled sensitivity to the commonly occurring cometary species OH.

OBSERVING DESCRIPTION

1. Overall observational strategy

We plan to observe the next active interstellar object with V<15 with two instrument settings, COS G160M CENWAVE 1589 A and STIS G230L, in two temporally separated epochs. The FOV will be centered at the comet. Therefore, we will use the same 4 visit (7 orbit) observing sequence (3 COS visits and one STIS visit) for each epoch.

The sequence in each 2-orbit COS visit is:

ACQ/IMAGE in NUV MIRROR A with PSA setting, 30 s exposure
G160M FP-POS# 1794 s
G160M FP-POS# 1794 s
ACQ/IMAGE in NUV MIRROR A with PSA setting, 30 s exposure

We will alternate the FP positions to cycle through all four FP-POS in each epoch. The first 2 visits in an epoch will cycle through FP-POS 1-4, one FP per orbit.
For the third COS visit in each epoch the sequence is:

ACQ/IMAGE in NUV MIRROR A with PSA setting, 30 s exposure
G160M FP-POS1 897 s
G160M FP-POS# 897 s

The 3rd visit cycles FP-POS=1 and FP-POS=2 in a single orbit. The trailing ACQ/IMAGE used in for the first and second COS visits is eliminated to improve science overhead.

This leads to a total exposure time in FP 1 and 2 each of 2691 s and 1794 s for each FP 3 and 4, for a total exposure time of 8970 s over 5 orbits. The exposure time is based on COS ETC run #COS.sp.1928787.

The sequence for each 2-orbit STIS G230L visit is:

ACQ in MIRROR with F28X50LP, 3 s exposure
G230L with 52X0.5, 1900 s exposure
IMAGE in MIRROR with F28X50LP, 3 s
G230L with 52X0.5, 19000 s exposure
IMAGE in MIRROR with F28X50LP

This leads to a total exposure time of 3800s over two orbits. The exposure time is based on STIS ETC run #STIS.sp.1928799

2. Comet position uncertainty and acquisition:

Upon discovery the next active interstellar object we will work rapidly to improve the ephemerides uncertainties. If it becomes clear that we should expect a 3-sigma uncertainty in RA or DEC in the range of 1.5" we will replace the primary ACQ/IMAGE in each COS visit with an ACQ/SEARCH pattern to ensure detection.

Visit

Proposal 18397, Epoch 1 : FP1 (01), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 01,02,03,04,05,06,07 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 1 : FP1 (01)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

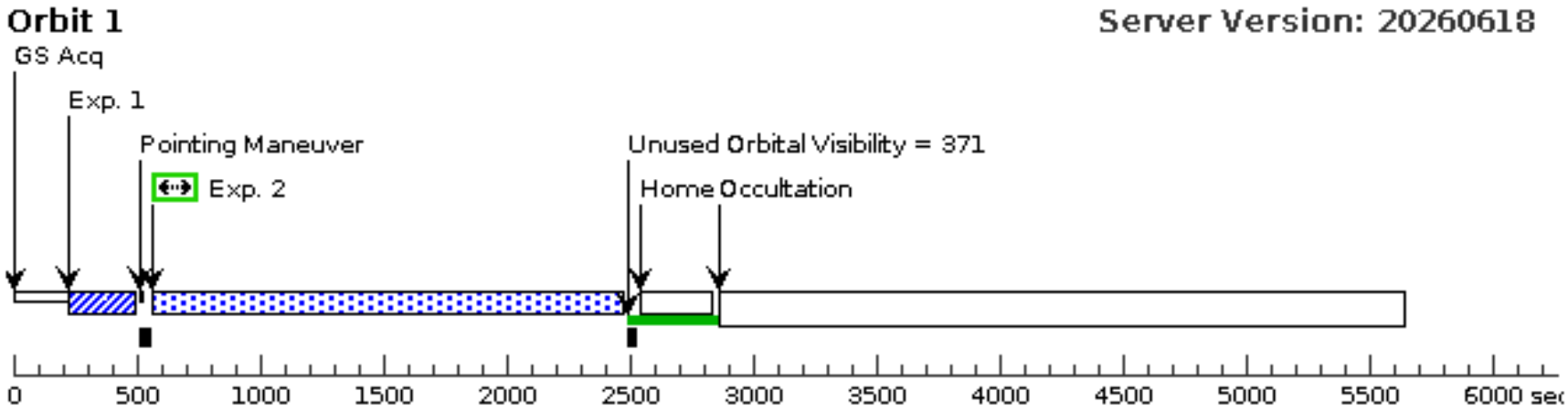
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP1 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 1 : FP1 (05), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 05,01,02,03,04,06,07 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 1 : FP1 (05)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

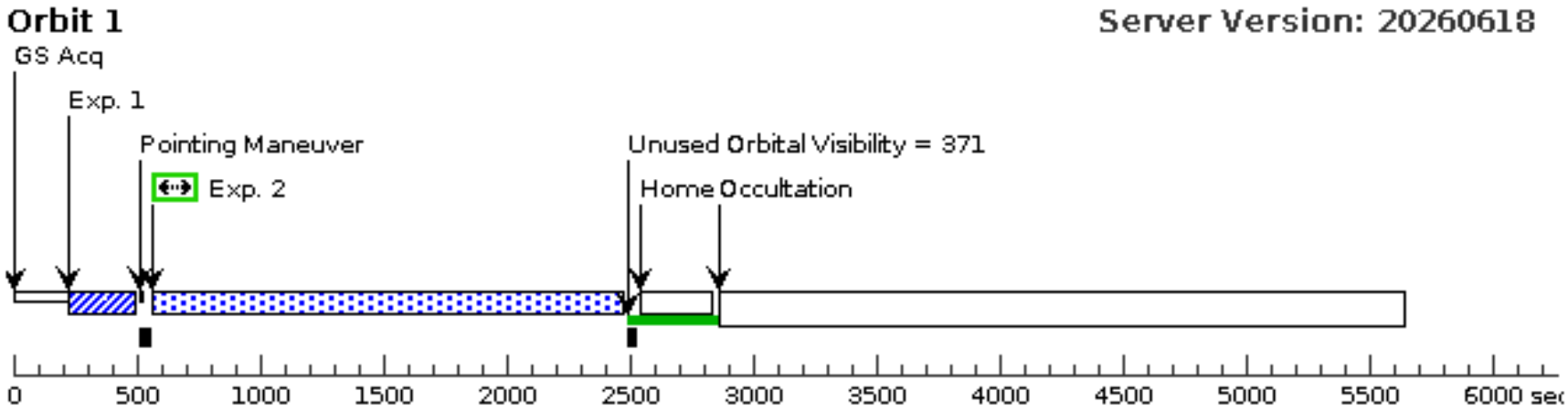
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	 ***[1]***
2	COS FP1 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 18397, Epoch 1 : FP2 (02), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 02,01,03,04,05,06,07 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 1 : FP2 (02)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

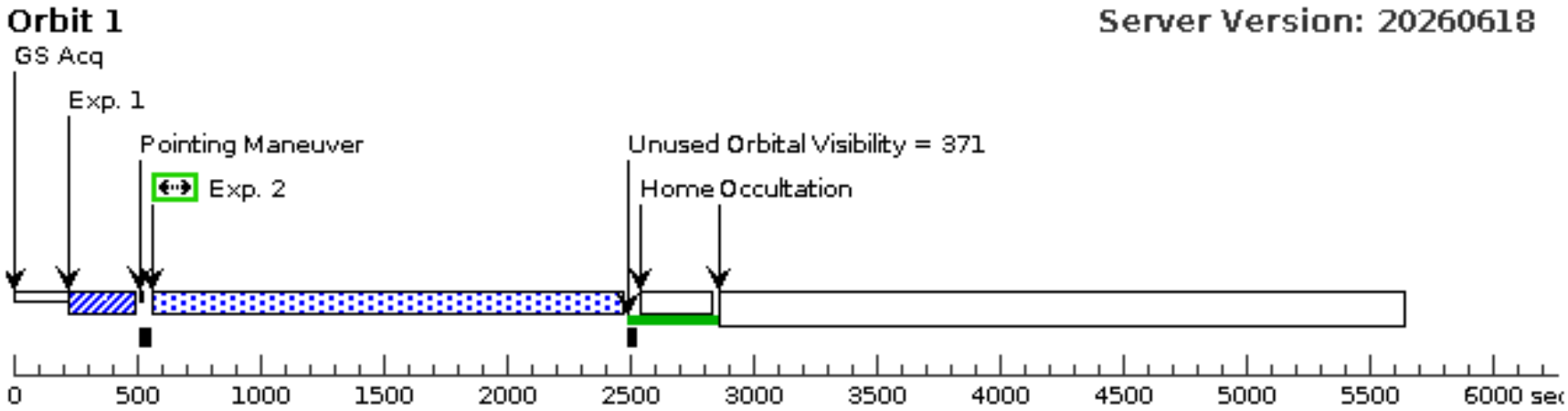
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP2 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 1 : FP3 (03), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 03,01,02,04,05,06,07 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 1 : FP3 (03)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

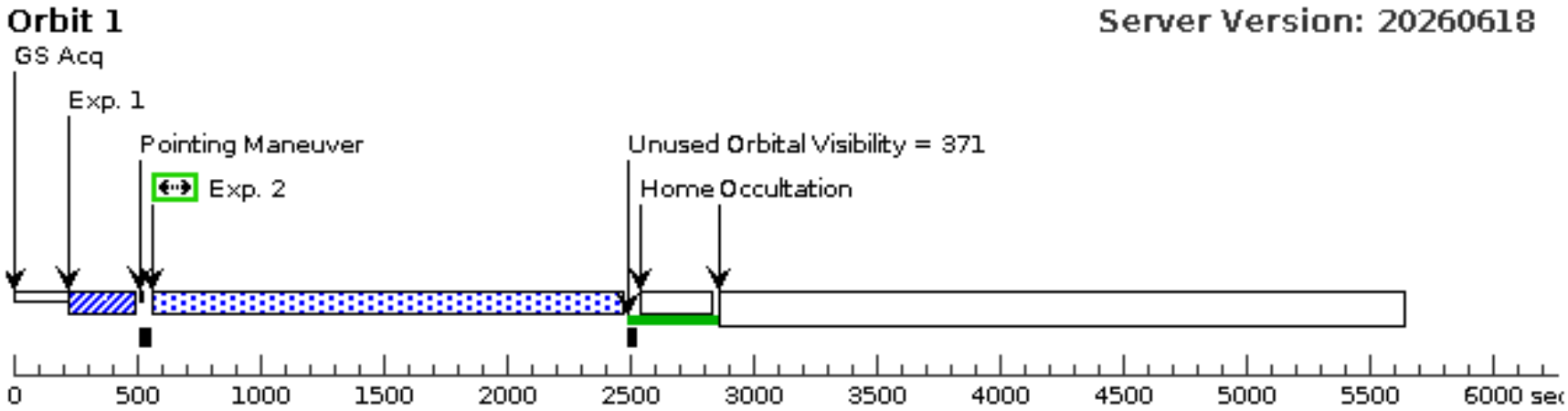
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP3 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 1 : FP4 (04), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 04,01,02,03,05,06,07 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 1 : FP4 (04)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

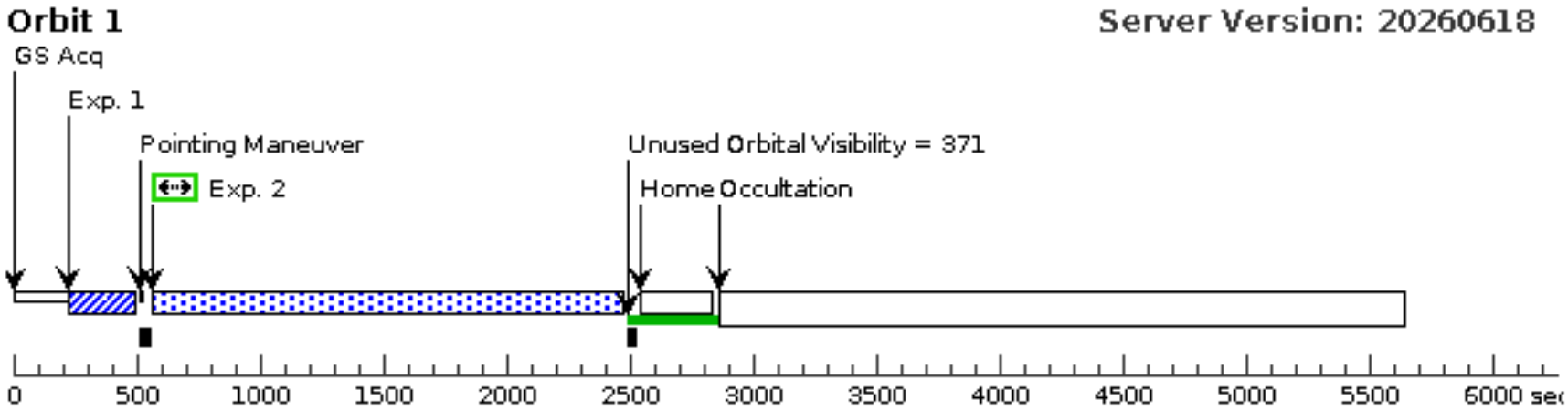
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP4 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 1: STIS G230L (06), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: No Diagnostics

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

Special Requirements: GROUP 06,01,02,03,04,05,07 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Generic Targets

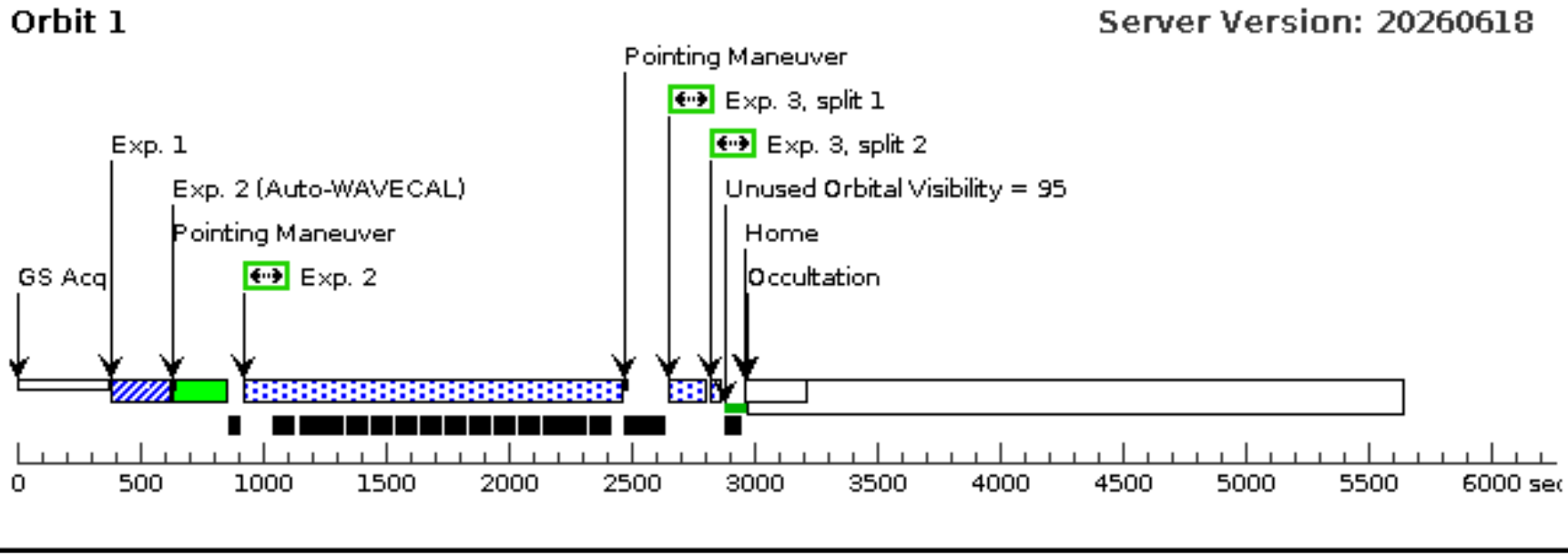
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(1) ISO-4I	STIS/CCD, ACQ, F28X50LP	MIRROR				3 Secs (3 Secs) *[==>]*	 ***[1]***
2	G230L (STIS.sp.19 28799)	(1) ISO-4I	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	BUFFER-TIME=99			1500 Secs (1500 Secs) *[==>]*	 ***[1]***
3	IMAGE (COS.ta.192 8813)	(1) ISO-4I	STIS/CCD, ACCUM, F28X50LP	MIRROR				15 Secs (15 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***

Orbit Structure



Visit

Proposal 18397, Epoch 1: STIS G230L (07), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: No Diagnostics

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

Special Requirements: GROUP 07,01,02,03,04,05,06 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Generic Targets

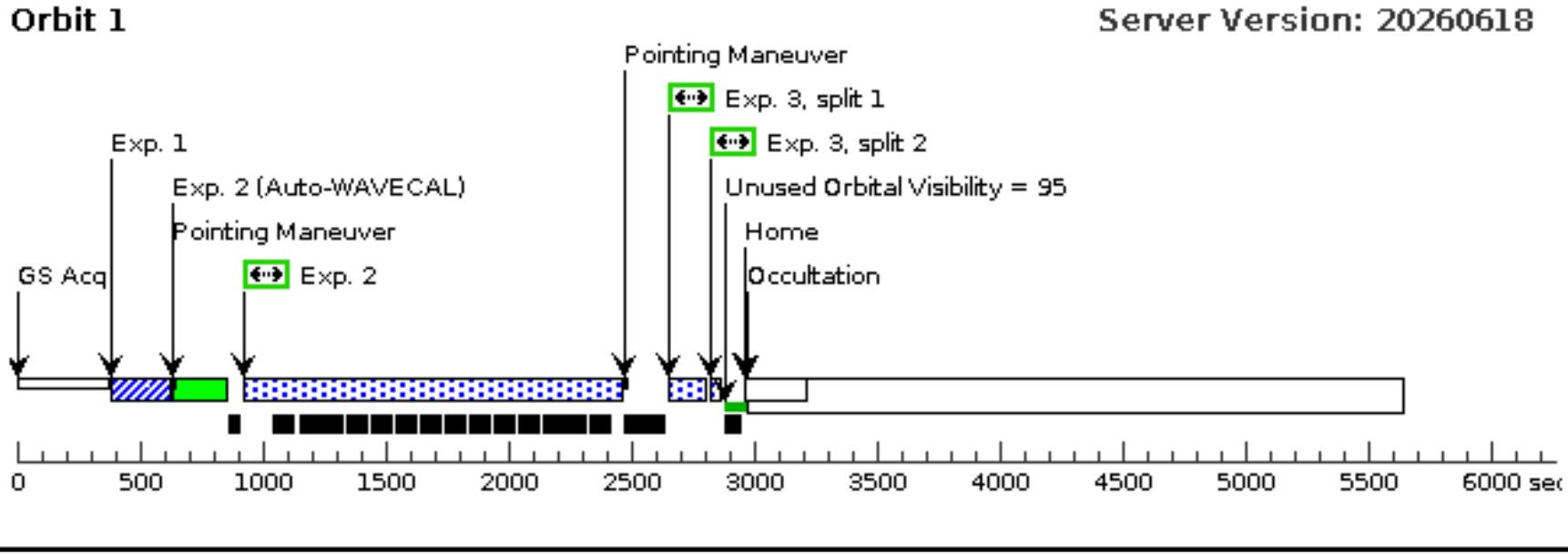
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(1) ISO-4I	STIS/CCD, ACQ, F28X50LP	MIRROR				3 Secs (3 Secs) *[==>]*	*[1]*
2	G230L (STIS.sp.19 28799)	(1) ISO-4I	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	BUFFER-TIME=99			1500 Secs (1500 Secs) *[==>]*	*[1]*
3	IMAGE (COS.ta.192 8813)	(1) ISO-4I	STIS/CCD, ACCUM, F28X50LP	MIRROR				15 Secs (15 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 2 : FP1 (08), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 08,09,10,11,12,13,14 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 2 : FP1 (08)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

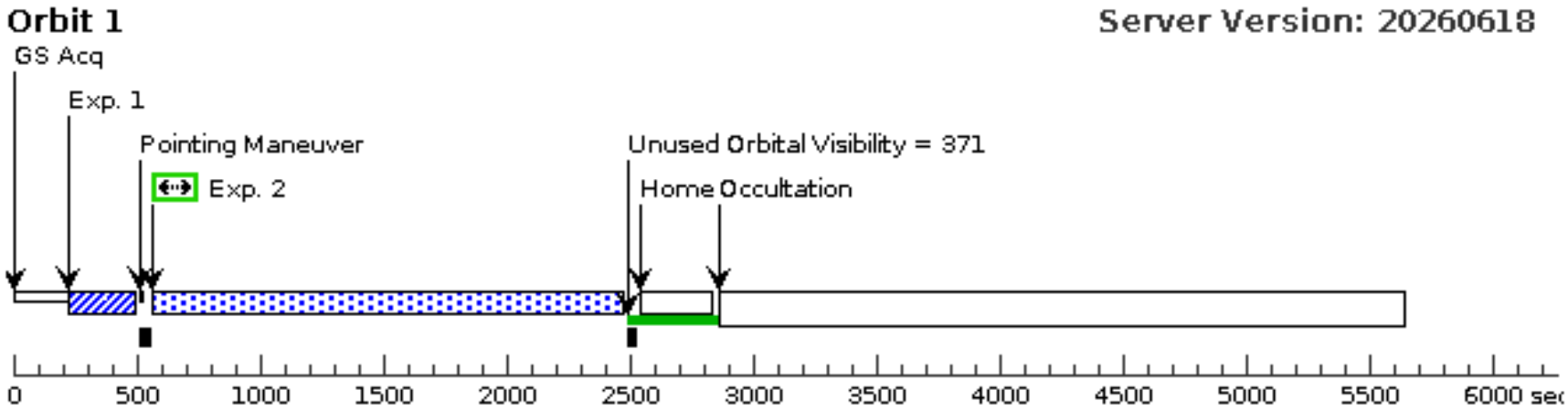
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP1 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 2 : FP1 (09), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 09,08,10,11,12,13,14 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 2 : FP1 (09)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

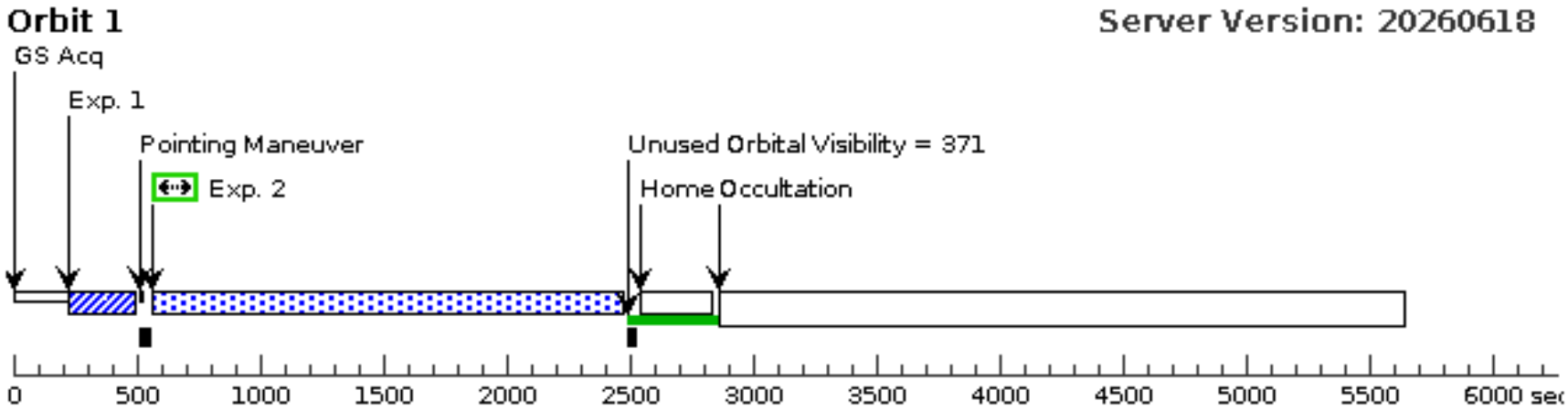
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP1 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 2 : FP2 (10), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 10,08,09,11,12,13,14 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 2 : FP2 (10)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

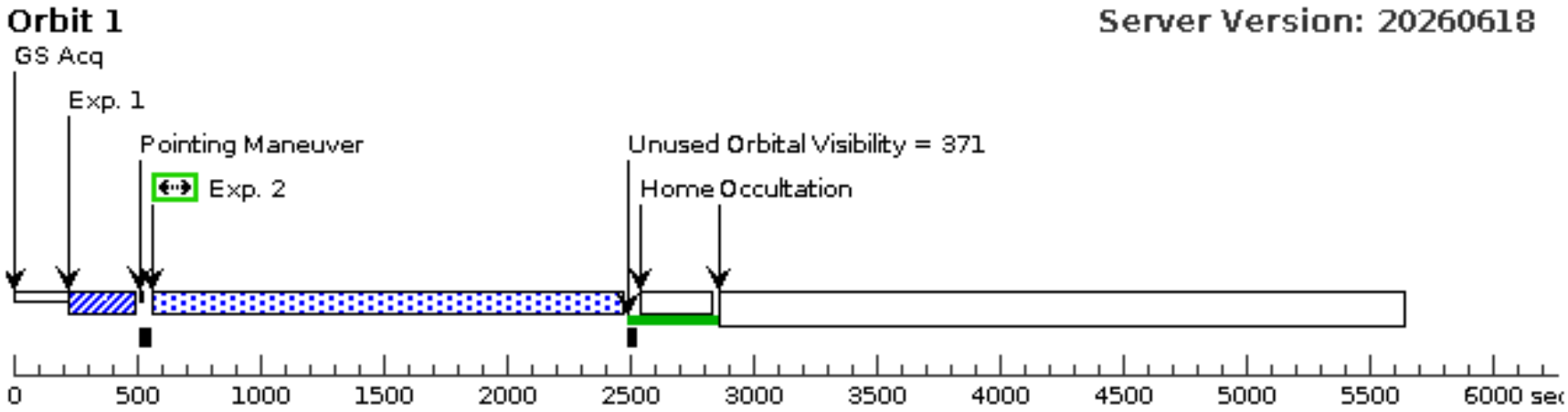
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP2 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 2 : FP3 (11), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 11,08,09,10,12,13,14 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 2 : FP3 (11)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

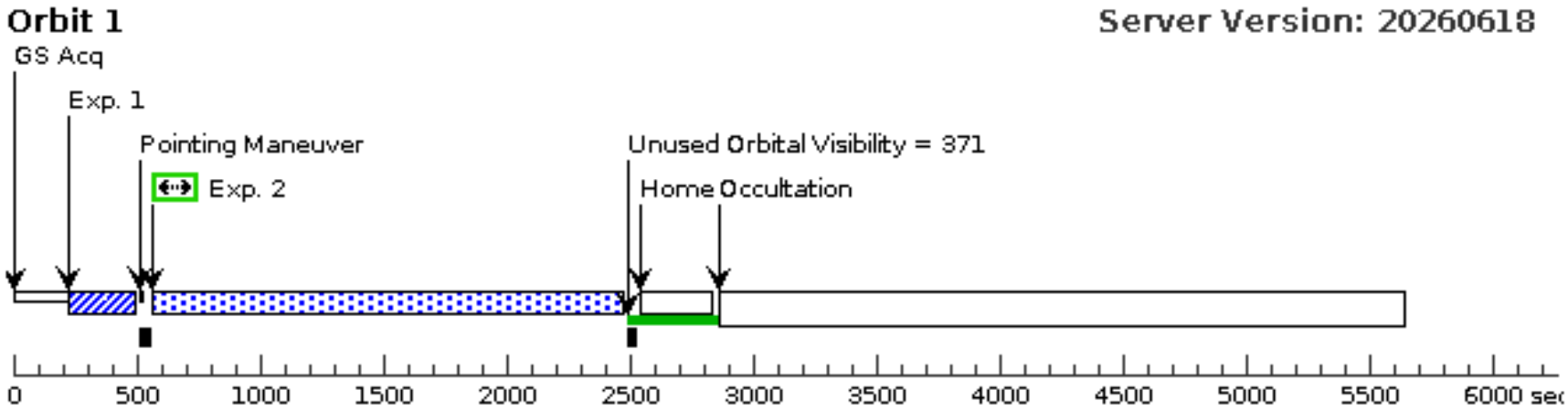
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP3 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 2 : FP4 (12), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 12,08,09,10,11,13,14 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 2 : FP4 (12)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

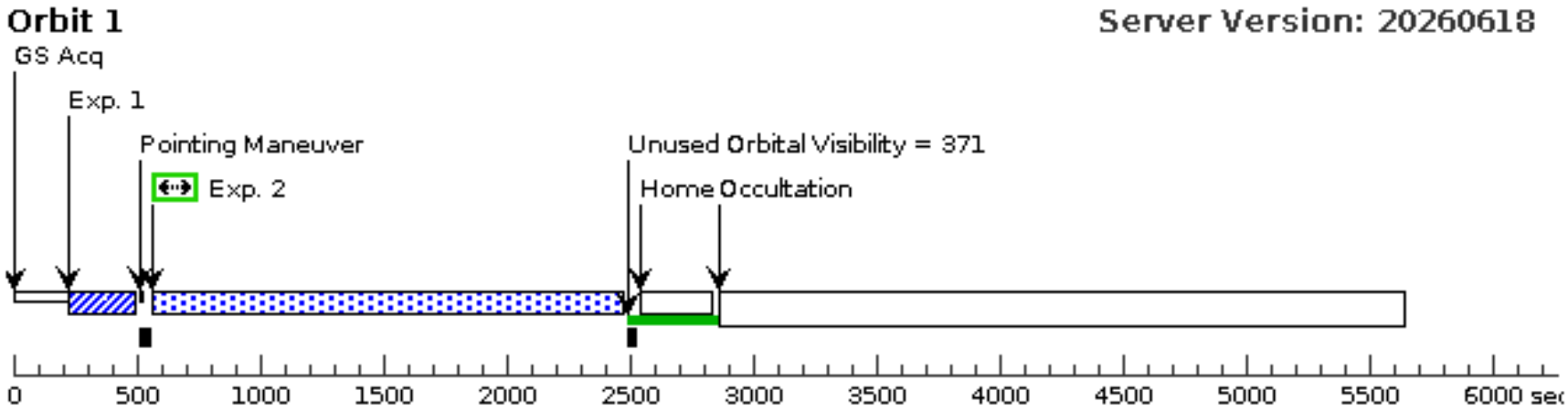
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP4 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 2: STIS G230L (13), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: No Diagnostics

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

Special Requirements: GROUP 13,08,09,10,11,12,14 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Generic Targets

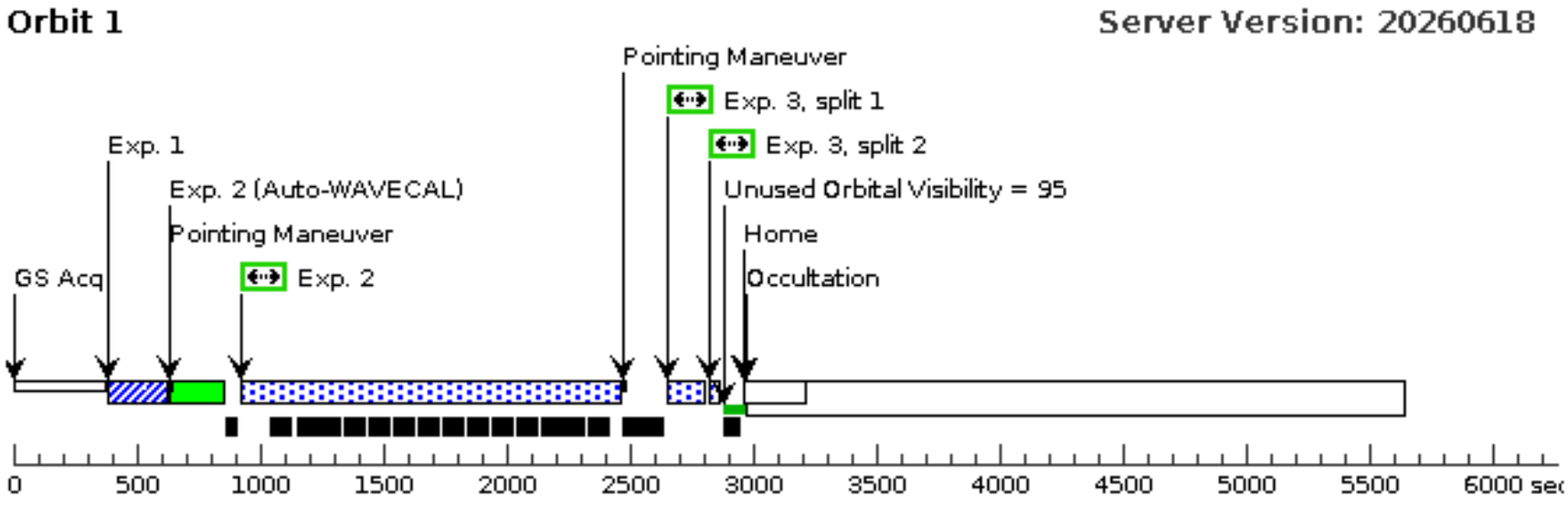
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(1) ISO-4I	STIS/CCD, ACQ, F28X50LP	MIRROR				3 Secs (3 Secs) *[==>]*	 ***[1]***
2	G230L (STIS.sp.19 28799)	(1) ISO-4I	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	BUFFER-TIME=99			1500 Secs (1500 Secs) *[==>]*	 ***[1]***
3	IMAGE (COS.ta.192 8813)	(1) ISO-4I	STIS/CCD, ACCUM, F28X50LP	MIRROR				15 Secs (15 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***

Orbit Structure



Visit

Proposal 18397, Epoch 2: STIS G230L (14), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: No Diagnostics

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

Special Requirements: GROUP 14,08,09,10,11,12,13 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Generic Targets

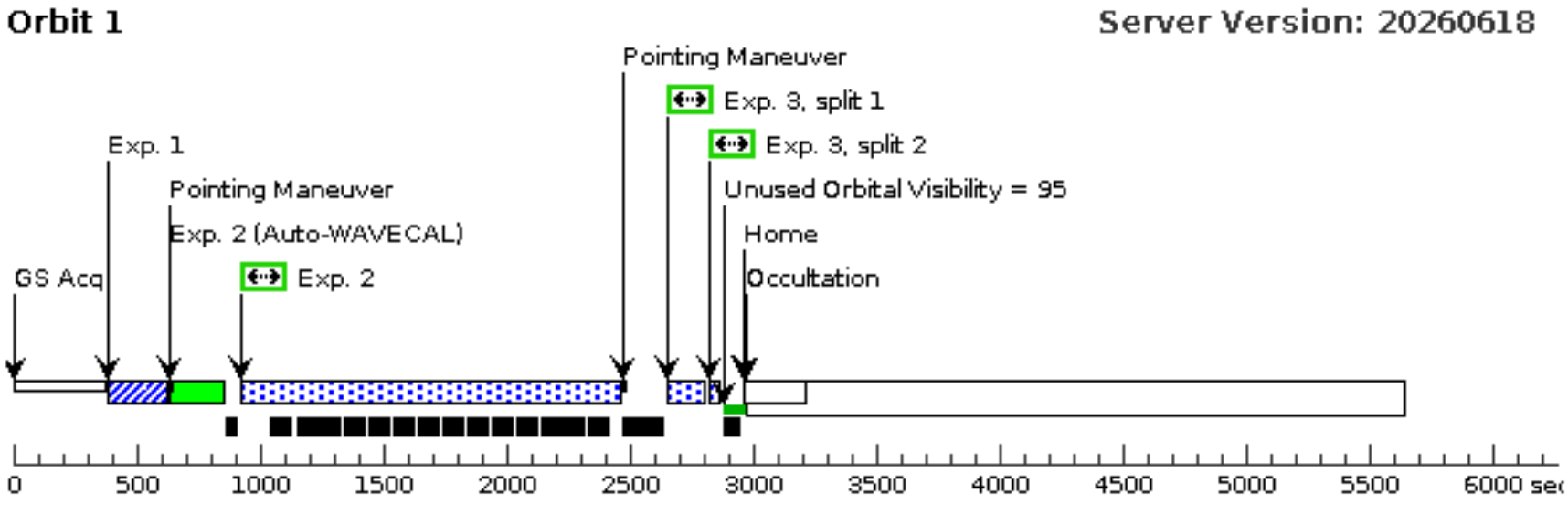
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(1) ISO-4I	STIS/CCD, ACQ, F28X50LP	MIRROR				3 Secs (3 Secs) *[==>]*	 ***[1]***
2	G230L (STIS.sp.19 28799)	(1) ISO-4I	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	BUFFER-TIME=99			1500 Secs (1500 Secs) *[==>]*	 ***[1]***
3	IMAGE (COS.ta.192 8813)	(1) ISO-4I	STIS/CCD, ACCUM, F28X50LP	MIRROR				15 Secs (15 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***

Orbit Structure



Visit

Proposal 18397, Epoch 3 : FP1 (15), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 15,16,17,18,19,20,21 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 3 : FP1 (15)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

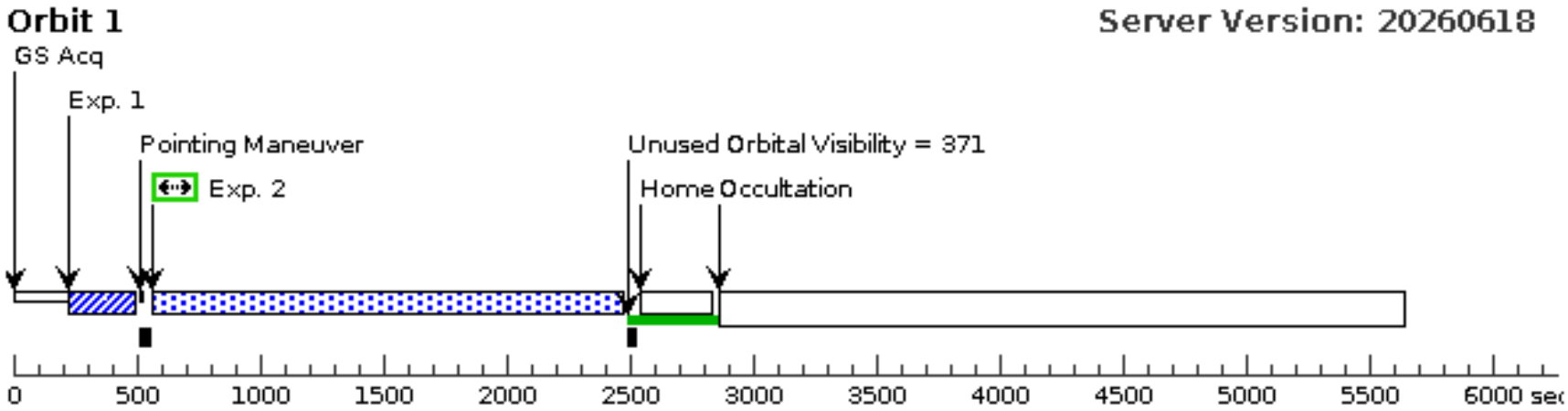
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP1 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 3 : FP1 (16), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 16,15,17,18,19,20,21 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 3 : FP1 (16)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

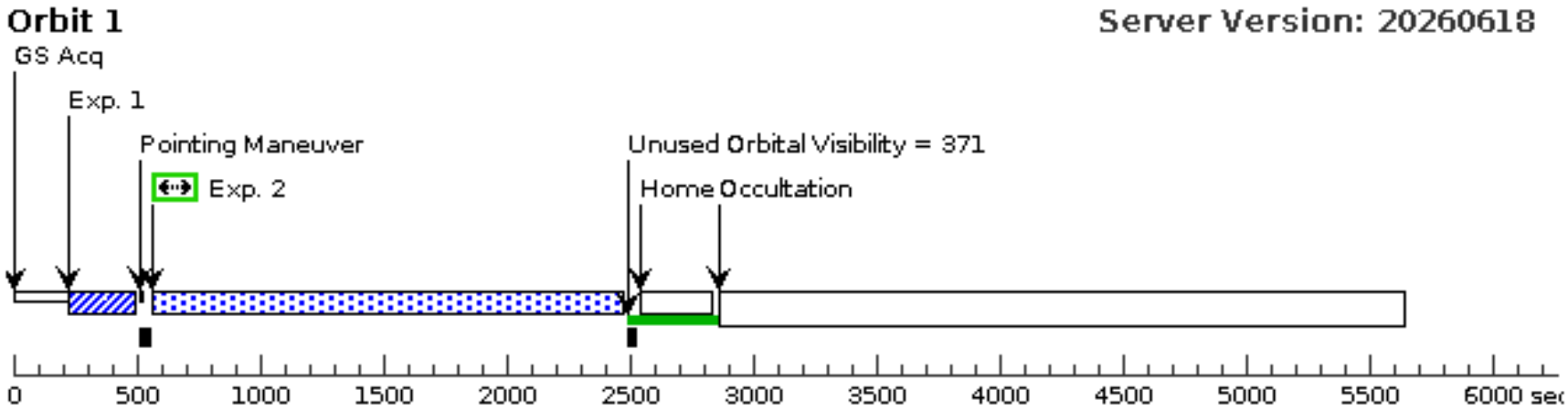
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP1 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=1; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 3 : FP2 (17), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 17,15,16,18,19,20,21 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 3 : FP2 (17)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

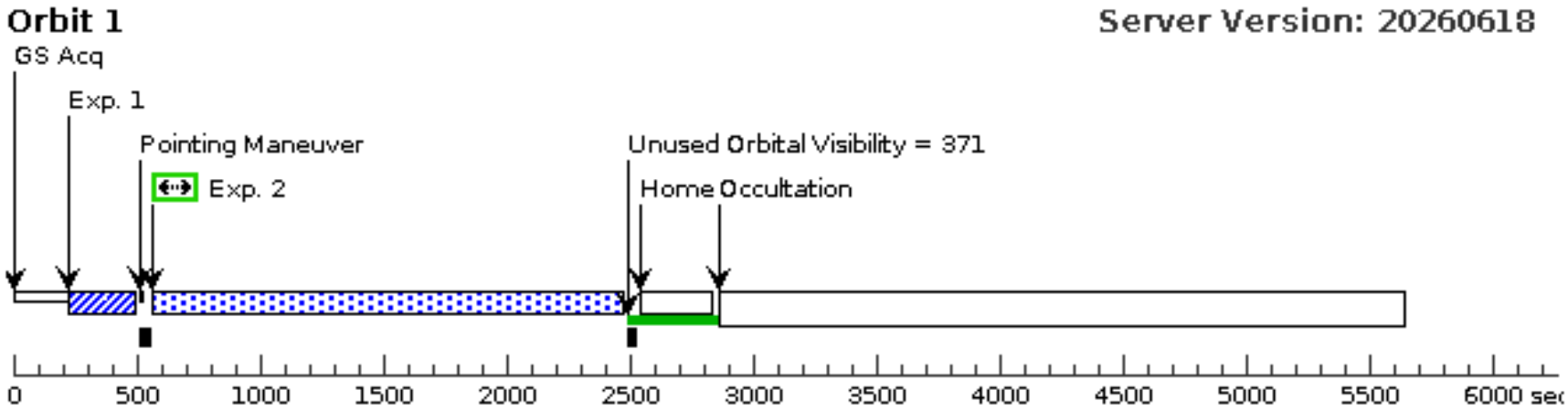
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP2 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=2; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 3 : FP3 (18), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 18,15,16,17,19,20,21 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 3 : FP3 (18)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

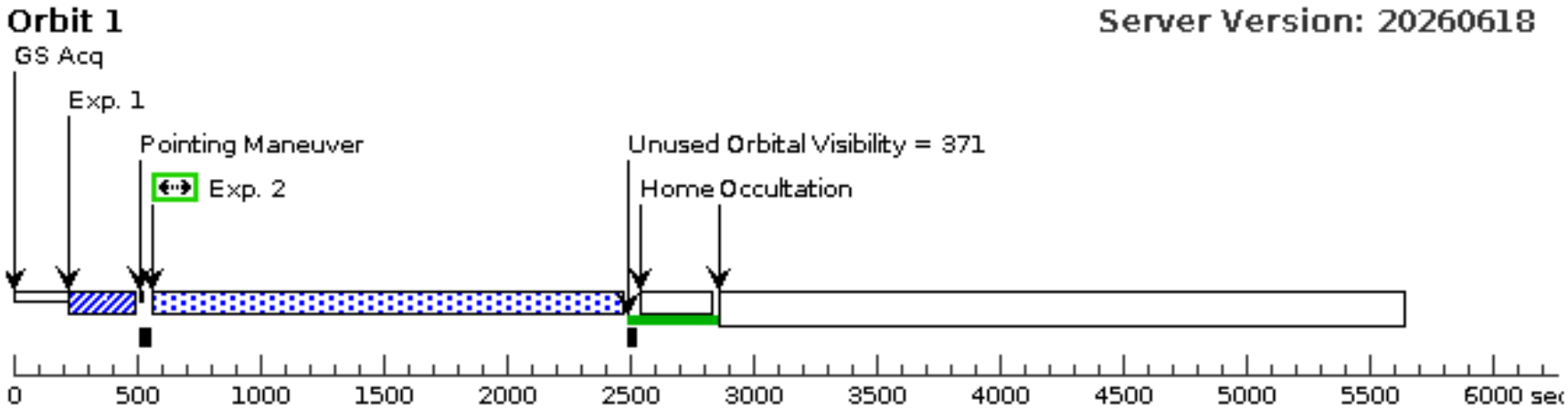
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP3 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=3; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 3 : FP4 (19), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%; GROUP 19,15,16,17,18,20,21 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Diagnostics

(Epoch 3 : FP4 (19)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions at a given COS cenwave (or 2 positions for certain exception cases). See extended explanation in the diagnostic browser.

Generic Targets

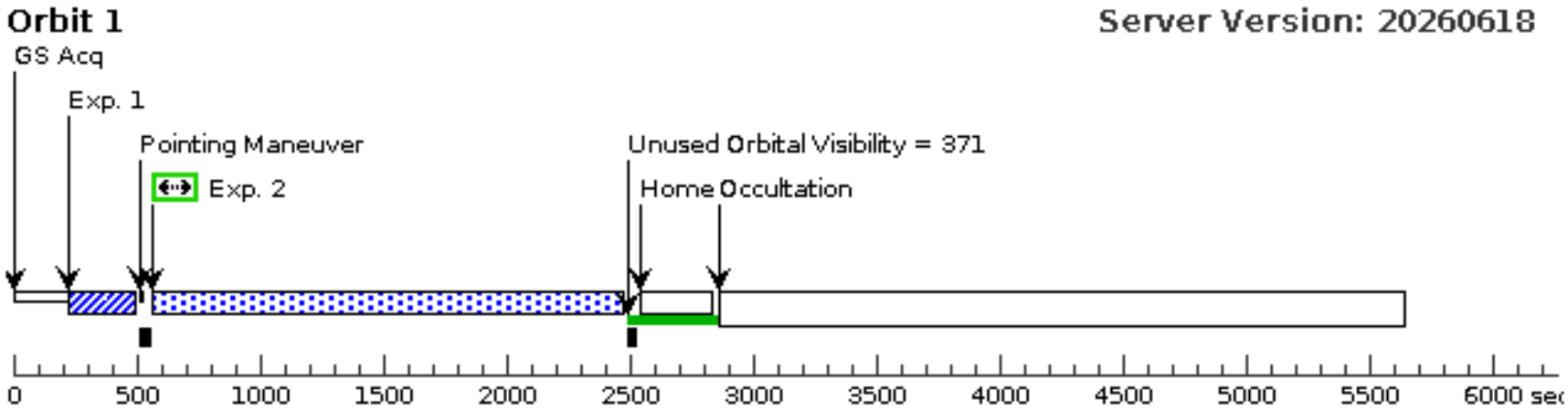
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1928813)	(1) ISO-4I	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				30 Secs (30 Secs) *[==>]*	*[1]*
2	COS FP4 (COS.sp.1928787)	(1) ISO-4I	COS/FUV, TIME-TAG, PSA	G160M 1589 A	FP-POS=4; BUFFER-TIME=10000; LIFETIME-POS=LP10			1700 Secs (1700 Secs) *[==>]*	*[1]*

Orbit Structure



Visit

Proposal 18397, Epoch 3: STIS G230L (20), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: No Diagnostics

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

Special Requirements: GROUP 20,15,16,17,18,19,21 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Generic Targets

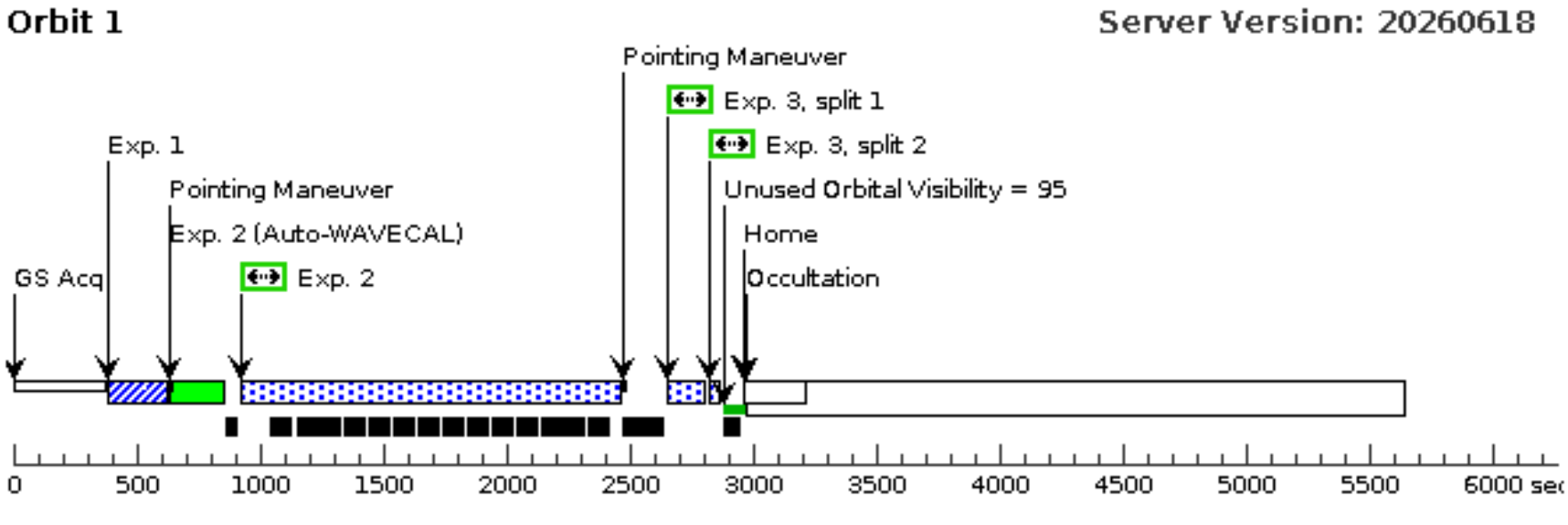
#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(1) ISO-4I	STIS/CCD, ACQ, F28X50LP	MIRROR				3 Secs (3 Secs) *[==>]*	 ***[1]***
2	G230L (STIS.sp.19 28799)	(1) ISO-4I	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	BUFFER-TIME=99			1500 Secs (1500 Secs) *[==>]*	 ***[1]***
3	IMAGE (COS.ta.192 8813)	(1) ISO-4I	STIS/CCD, ACCUM, F28X50LP	MIRROR				15 Secs (15 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***

Orbit Structure



Visit

Proposal 18397, Epoch 3: STIS G230L (21), implementation Thu Aug 27 18:00:52 GMT 2026

Diagnostic Status: No Diagnostics

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

Special Requirements: GROUP 21,15,16,17,18,19,20 WITHIN 7D; ON HOLD ; TOO MIN RESPONSE TIME 21.0D; TOO MAX RESPONSE TIME 60.0D

On Hold Comments: We are on hold to activate for an active ISO that is observable by HST and will reach a minimum magnitude of 17.

Generic Targets

#	Name	Criteria	Description
(1)	ISO-4I	Active Interstellar Comet	COMET

Comments: We will trigger our ToO upon the detection of an active ISO, that is, with an hyperbolic orbit with a barycentric eccentricity significantly greater than unity as reported by the JPL Small-body Database, that has a perihelion within 2 au and reaches at least V=15. Activity will be defined as having a distinct coma upon detection that manifests as a nonstellar point spread function in discovery images and that persists in all follow-up observations. We will coordinate with the JWST ToO team to trigger on the same object and focus HST's capability near perihelion, where JWST may not be able to observe depending on the object's path through the solar system.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(1) ISO-4I	STIS/CCD, ACQ, F28X50LP	MIRROR				3 Secs (3 Secs) *[==>]*	 ***[1]***
2	G230L (STIS.sp.19 28799)	(1) ISO-4I	STIS/NUV-MAMA, TIME-TAG, 52X2	G230L 2376 A	BUFFER-TIME=99			1500 Secs (1500 Secs) *[==>]*	 ***[1]***
3	IMAGE (COS.ta.192 8813)	(1) ISO-4I	STIS/CCD, ACCUM, F28X50LP	MIRROR				15 Secs (15 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***

Orbit Structure