17823 - Linking Gas-Phase Element Depletions and Extinction Curves in the Small Magellanic Cloud

Cycle: 32, 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?*
11	(1) AZV-023	COS/FUV COS/NUV	2	02-Jan-2025 11:00:12.0	yes
21	(2) AZV-214	COS/FUV COS/NUV	2	02-Jan-2025 11:00:13.0	yes
31	(3) AZV-398	COS/FUV	3	02-Jan-2025 11:00:13.0	yes
32	(3) AZV-398	COS/FUV	3	02-Jan-2025 11:00:14.0	yes
41	(4) 2DFS3030	COS/FUV COS/NUV	2	02-Jan-2025 11:00:15.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
42	(4) 2DFS3030	COS/FUV COS/NUV	2	02-Jan-2025 11:00:15.0	yes
51	(1) AZV-023	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:16.0	yes
61	(2) AZV-214	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:17.0	yes
71	(3) AZV-398	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:18.0	yes
72	(3) AZV-398	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:19.0	yes
73	(3) AZV-398	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:20.0	yes
74	(3) AZV-398	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:21.0	yes
75	(3) AZV-398	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:21.0	yes
81	(4) 2DFS3030	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:22.0	yes
82	(4) 2DFS3030	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:23.0	yes
83	(4) 2DFS3030	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:24.0	yes
84	(4) 2DFS3030	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:25.0	yes
85	(4) 2DFS3030	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:26.0	yes
86	(4) 2DFS3030	STIS/CCD STIS/NUV-MAMA	3	02-Jan-2025 11:00:27.0	yes

53 Total Orbits Used

ABSTRACT

We aim to investigate the relation between extinction curves and the composition of dust grains in the Small Magellanic Cloud (SMC). So far, 17 extinction curves have been measured for the SMC, and most of these deviate strongly from those observed in the Milky Way, being steeper and exhibiting a small or nonexistent bump feature at 2175 A. The dust could therefore be fundamentally different under the low-metallicity conditions (0.2 solar) of the SMC, and we aim to study how the composition of dust grains plays a role in these differences. Depletions of gas-phase metals are a key observable to infer constraints on the dust grain composition, and have been measured for 18 SMC sightlines. However, a systematic study of extinction curves and depletion is currently not possible, because the existing SMC extinction curve and depletion samples share only 3 sightlines. We propose COS/FUV and STIS/NUV spectroscopic observations at medium resolution towards 4 stars in the SMC, for which high-quality extinction curves are already available. These data will be used to measure the depletions of the key constituents of dust, and expand the depletion+extinction sample size from 3 to 7. With this increase in sample size, we will be able to explore the relation between UV extinction curves and the dust composition for the first time in the SMC. These sightlines also extend the existing SMC depletion sample to higher column densities (1e22 cm-2), thereby probing the accretion of gas-phase metals by dust grains at higher densities.

OBSERVING DESCRIPTION

We will investigate the relation between extinction curves and the composition of dust grains -- as measured by depletions -- in the Small Magellanic Cloud. Depletions of gas-phase metals have been measured for 18 SMC sightlines. However, the existing SMC extinction curve and depletion samples share only 3 sightlines. We propose COS/FUV and STIS/NUV spectroscopic observations towards 4 stars in the SMC, for which high-quality extinction curves are already available, and expand the depletion+extinction sample size from 3 to 7.

The 4 targets will be observed with deep COS/FUV G130M (1291) and STIS/NUV-MAMA E230M (1978) spectroscopy. The 53 orbits allocated to this program, will be distributed to achieve the following estimated SNR:
For COS, SNR >= 25 at 1250 A. This can be achieved in 1 - 6 orbits per source.
For STIS, SNR >= 13 at 2050 A. This can require long exposure times. The observations have been structured in visits of 3 orbits each, as recommended here: https://hst-docs.stsci.edu/stisihb/chapter-2-special-considerations-for-cycle-32/2-6-scheduling-efficiency-and-visit-orbit-limits.

The COS visits start with an NUV imaging target acquisition, with a mirror and aperture combination that depends on the brightness. Then, the

G130M/1291 exposures are taken for multiple orbits. We set up a mix of FP-POS3 and FP-POS4 observations, to achieve the benefits of dithering. This is achieved by setting a separate FP-POS per visit or per orbit. The estimated exposure time available is around 2400 s for the first orbit in a visit, and 2700 s for subsequent visits.

The STIS visits start with a spectroscopic target acquisition, using the CCD in combination with the F28x50LP long pass slit, which is appropriate for the brightness of all sources. Then three long exposures with E230M/1978 orbit are performed, one exposure per orbit. Buffer times have been set according to the fill time reported by the ETC. The estimated exposure time available is around 2300 s for the first orbit in a visit, and 2800 s for subsequent visits.

As per Change Request 92938, the target 2DFS0699 has been replaced by 2DFS3030.

Visit

Proposal 17823, AzV 023 COS 2/2 (11), scheduling Thu Jan 02 16:00:27 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: initial: 2450 s snr 20
subsequent: 2740 s
need 4500 s -> 2 orbits

AQC MIRRORA BOA needs 13 s with img round up to 20
Update 2024-10-29: switch to AQC MIRRORB BOA to to reduce safety warnings from 4 to 1: COS.ta.1940558, 235 s needed

Fixed Targets

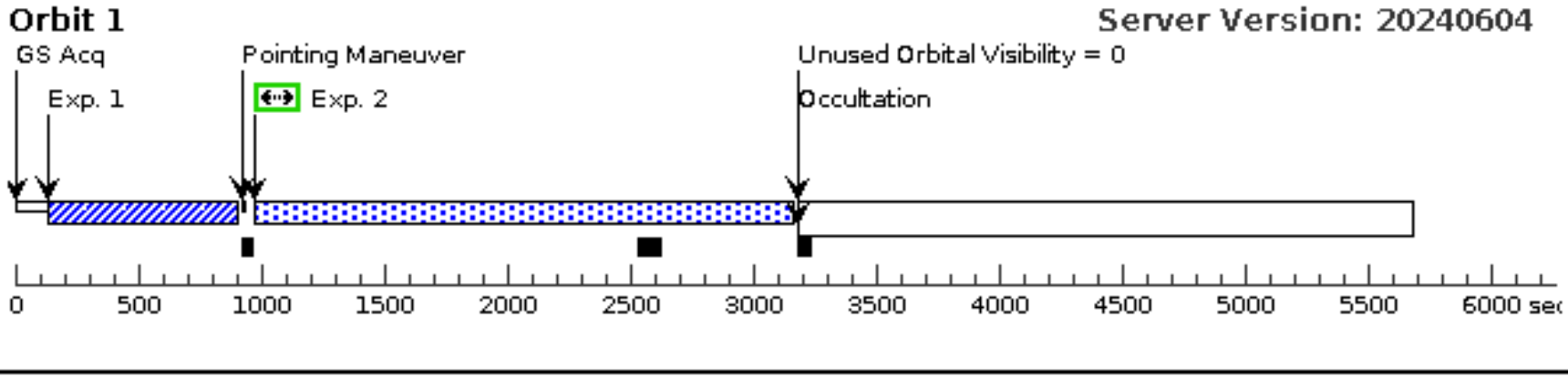
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	AZV-023	RA: 00 47 38.9029 (11.9120954d)	Proper Motion RA: 0.558 mas/yr	V=12.236	Reference Frame: ICRS
		Dec: -73 22 53.86 (-73.38163d)	Proper Motion Dec: -1.259 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

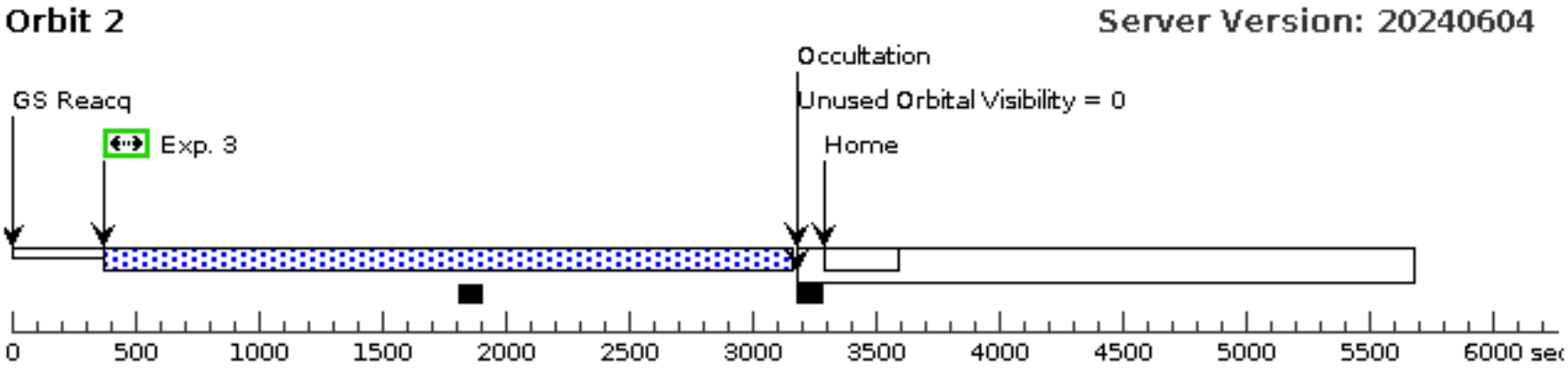
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B3-B5 III-I]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ MIRRORB BOA (COS.ta.1940558)	(1) AZV-023	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				235 Secs (235 Secs) *[==>]*	*[1]*
2	FP-POS3 (COS.sp.1933585)	(1) AZV-023	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=1400; FP-POS=3			1076 Secs (2021 Secs) *[==>2021.0 Secs]*	*[1]*
3	FP-POS4 (COS.sp.1933585)	(1) AZV-023	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=1400; FP-POS=4			1076 Secs (2740 Secs) *[==>2740.0 Secs]*	*[2]*

Orbit Structure





Visit

Proposal 17823, AzV 214 COS 2/2 (21), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: initial: 2450 s snr 31
need 1800 s -> 1 orbit

Chose 2 (one of each FP-POS) for consistency, and to use the 53rd orbit (only used 52 at original submission).

AQC MIRRORA BOA needs 11s round up to 20
Update 2024-10-29: switch to AQC MIRRORB BOA to to reduce safety warnings -> 252 s

Fixed Targets

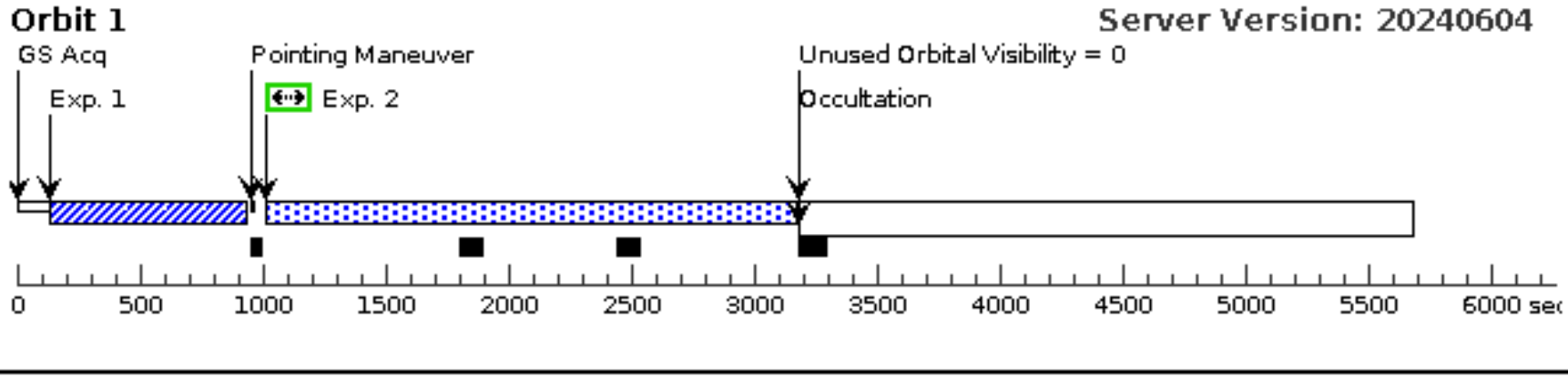
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	AZV-214	RA: 00 58 54.7802 (14.7282508d)	Proper Motion RA: 0.566 mas/yr	V=13.39	Reference Frame: ICRS
		Dec: -72 13 17.17 (-72.22144d)	Proper Motion Dec: -1.229 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

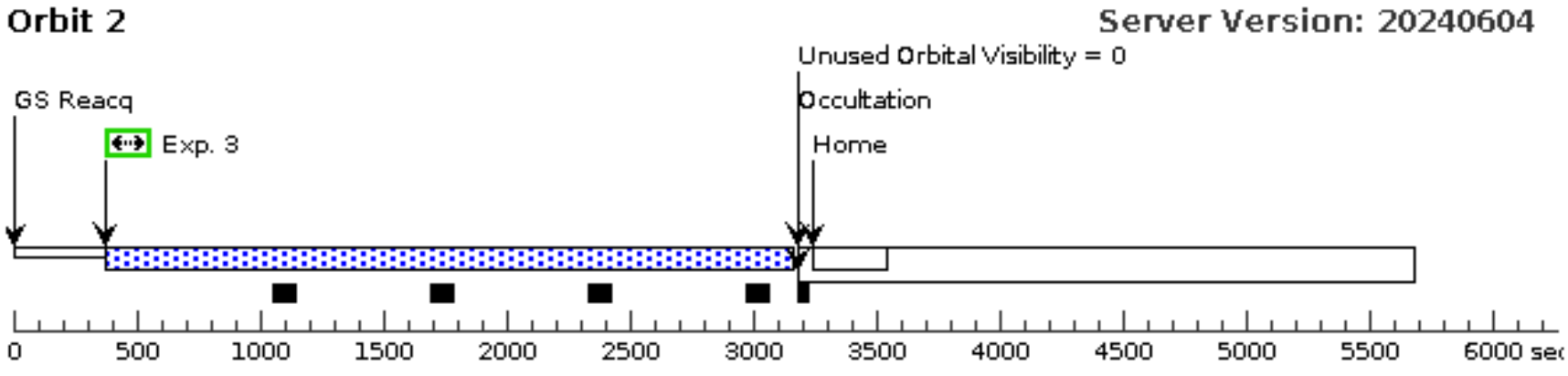
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B0-B2 III-I]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ MIRRORB BOA (COS.ta.1940568)	(2) AZV-214	COS/NUV, ACQ/IMAGE, BOA	MIRRORB				252 Secs (252 Secs) *[==>]*	 ***[1]***
2	FP-POS3 (COS.sp.1928447)	(2) AZV-214	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=640; FP-POS=3			2000 Secs (1987 Secs) *[==>1987.0 Secs]*	 ***[1]***
3	FP-POS4 (COS.sp.1928447)	(2) AZV-214	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=640; FP-POS=4			2000 Secs (2740 Secs) *[==>2740.0 Secs]*	 ***[2]***

Orbit Structure





Visit

Proposal 17823, AzV 398 COS 3/6 FP-POS3 (31), implementation Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

Comments: Initial: 2480 s snr 11
subsequent: 2740 s
need 12000 s -> 3 + 2 orbits

ACQ (update 2024-10-29)
3 s with img mirror B PSA -> 1 safety warning
Or 39 s with img mirror A BOA COS.ta.1940572 -> 3 safety warnings.
But the two nearby stars are about 10x as weak as the main target. So if AzV 398 is safe, then the other two should also be safe.
Or 688 s with mirror B BOA COS.ta.1940571 -> no safety warning

Fixed Targets

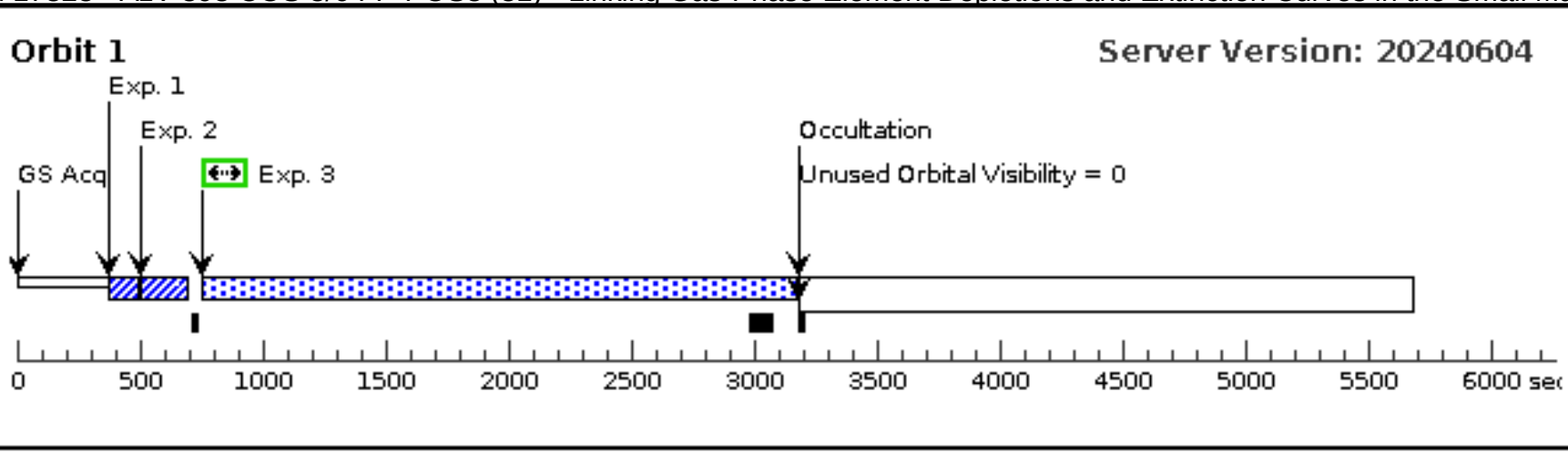
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AZV-398	RA: 01 06 9.8135 (16.5408896d)	Proper Motion RA: 0.998 mas/yr	V=13.98	Reference Frame: ICRS
		Dec: -71 56 0.75 (-71.93354d)	Proper Motion Dec: -1.102 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

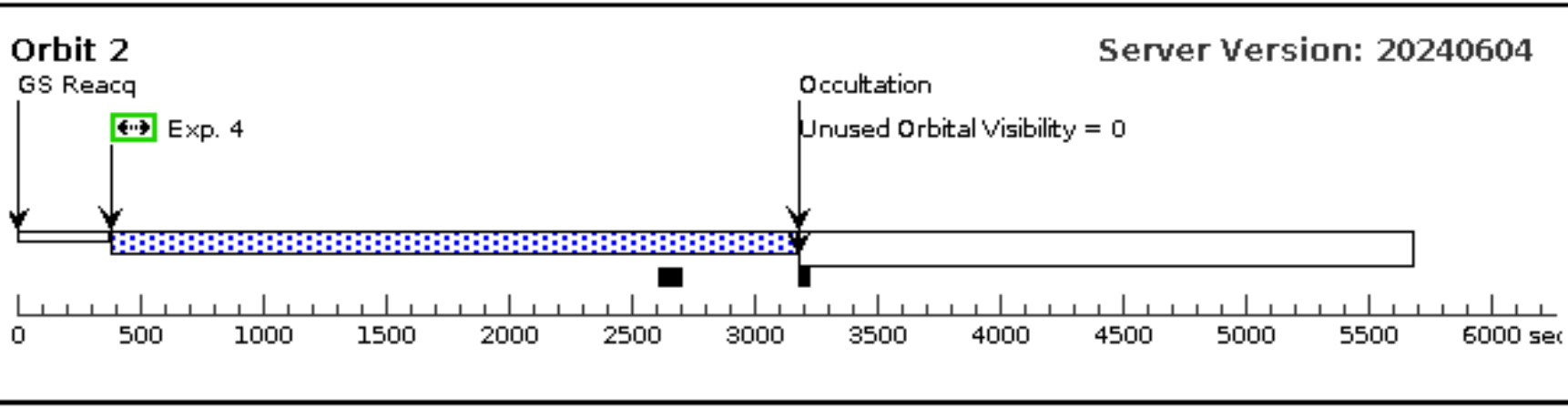
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

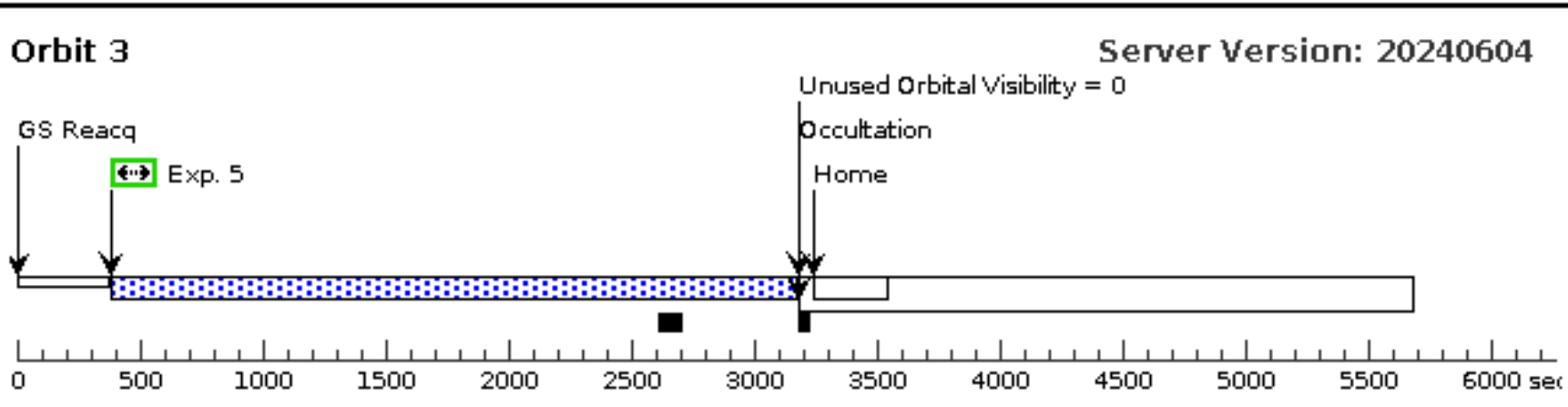
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ PEAKXD (COS.sa.1940730)	(3) AZV-398	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=BOTH			8 Secs (8 Secs) *[==>]*	*[1]*
2	ACQ PEAKD (COS.sa.1940730)	(3) AZV-398	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR; SEGMENT=BOTH			8 Secs (8 Secs) *[==>]*	*[1]*
Comments: Exposure time was chosen assuming SEGMENT=BOTH, so that is what I set here. For single segment, should use 15 s instead.									
3	FP-POS3 (COS.sp.1933565)	(3) AZV-398	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=2200; FP-POS=3			1076 Secs (2368 Secs) *[==>2368.0 Secs]*	*[1]*
4	FP-POS3 (COS.sp.1933565)	(3) AZV-398	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; FP-POS=3; BUFFER-TIME=2200			1076 Secs (2740 Secs) *[==>2740.0 Secs]*	*[2]*
5	FP-POS3 (COS.sp.1933565)	(3) AZV-398	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; FP-POS=3; BUFFER-TIME=2200			1076 Secs (2740 Secs) *[==>2740.0 Secs]*	*[3]*

Orbit Structure







Visit

Proposal 17823, AzV 398 COS 3/6 FP-POS4 (32), implementation Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: (none)

Comments: Initial: 2480 s snr 11
subsequent: 2740 s
need 12000 s -> 3 + 2 orbits

ACQ (update 2024-10-29)
3 s with img mirror B PSA -> 1 safety warning
Or 39 s with img mirror A BOA COS.ta.1940572 -> 3 safety warnings.
But the two nearby stars are about 10x as weak as the main target. So if AzV 398 is safe, then the other two should also be safe.
Or 688 s with mirror B BOA COS.ta.1940571 -> no safety warning

Fixed Targets

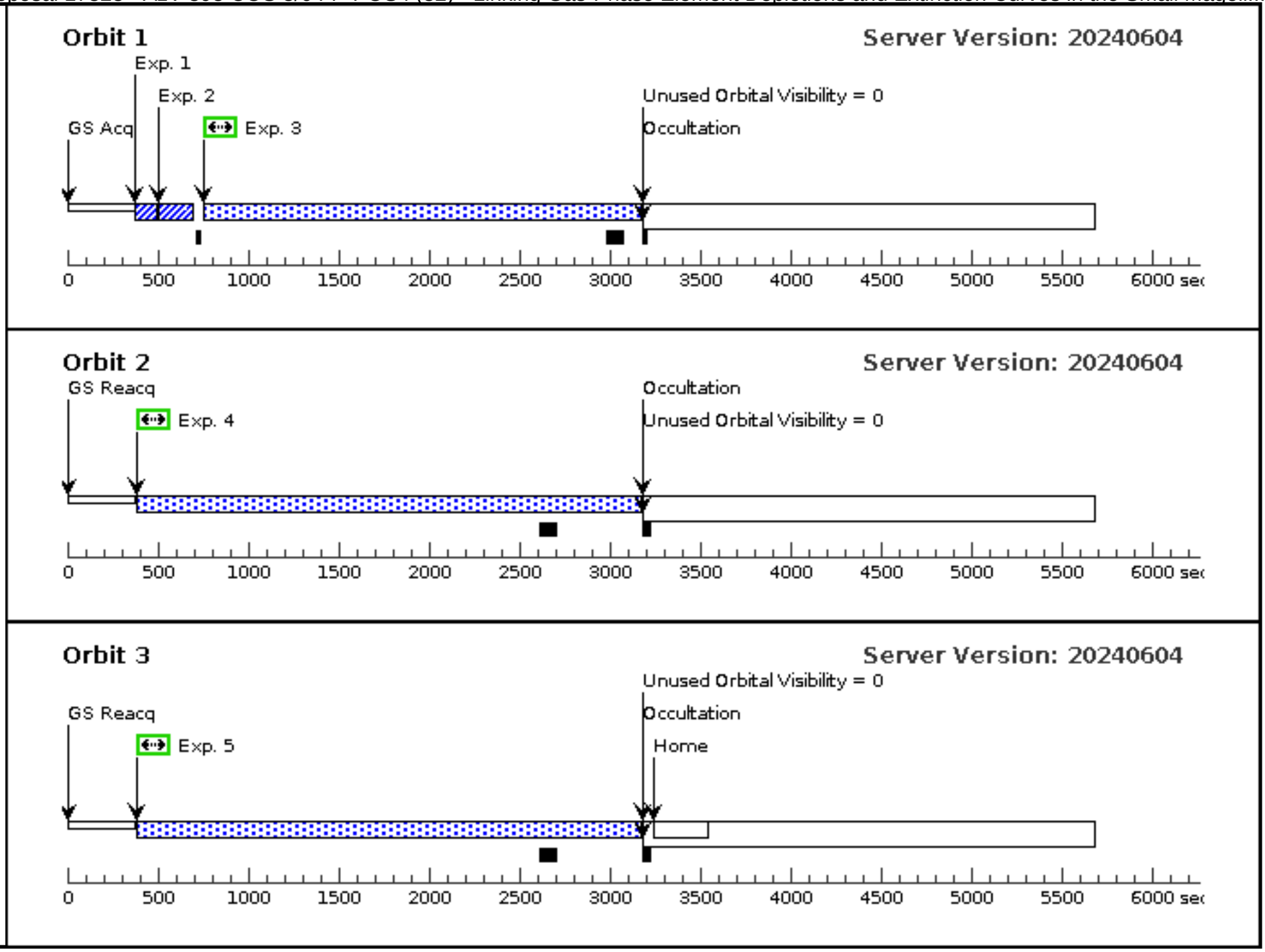
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AZV-398	RA: 01 06 9.8135 (16.5408896d)	Proper Motion RA: 0.998 mas/yr	V=13.98	Reference Frame: ICRS
		Dec: -71 56 0.75 (-71.93354d)	Proper Motion Dec: -1.102 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ PEAKXD (COS.sa.1940730)	(3) AZV-398	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	SEGMENT=BOTH			8 Secs (8 Secs) *[==>]*	***[1]***
2	ACQ PEAKD (COS.sa.1940730)	(3) AZV-398	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR; SEGMENT=BOTH			8 Secs (8 Secs) *[==>]*	***[1]***
Comments: Exposure time was chosen assuming SEGMENT=BOTH, so that is what I set here. For single segment, should use 15 s instead.									
3	FP-POS4 (COS.sp.1933565)	(3) AZV-398	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=2200; FP-POS=4			1076 Secs (2365 Secs) *[==>2365.0 Secs]*	***[1]***
4	FP-POS4 (COS.sp.1933565)	(3) AZV-398	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; FP-POS=4; BUFFER-TIME=2200			1076 Secs (2740 Secs) *[==>2740.0 Secs]*	***[2]***
5	FP-POS4 (COS.sp.1933565)	(3) AZV-398	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; FP-POS=4; BUFFER-TIME=2200			1076 Secs (2740 Secs) *[==>2740.0 Secs]*	***[3]***

Orbit Structure



Visit

Proposal 17823, 2DFS3030 COS 2/4 FP-POS3 (41), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: initial: 2480 s snr 16
subsequent: 2740 s
Need 5800 s -> 3 orbits

This target has the highest NHI. Lyman alpha absorption profile will impact Mg II line at 1240. Added extra orbit for even split between FP-POS3 and FP-POS4.
-> 2x2

ACQ needs 2 s, round up to 4 (with img mirror B PSA)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

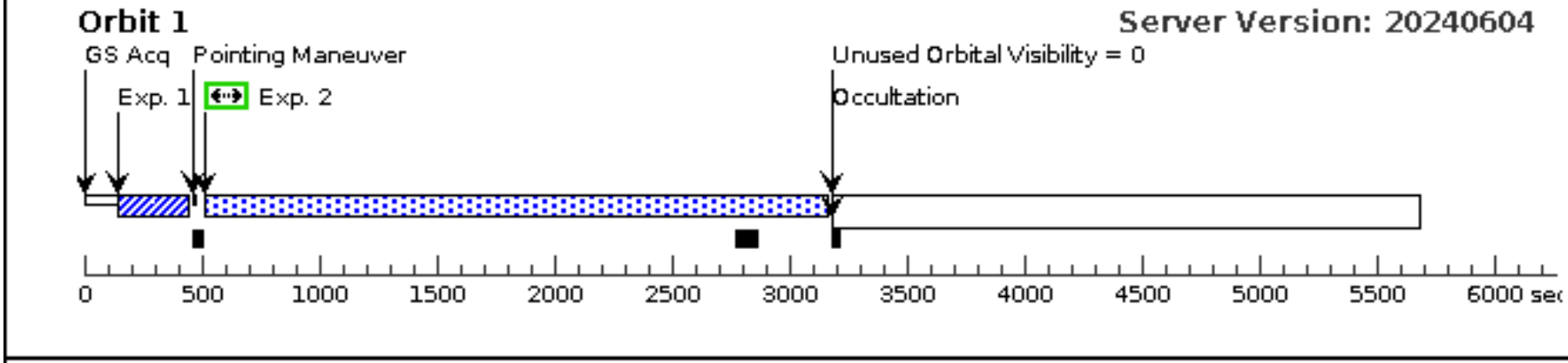
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

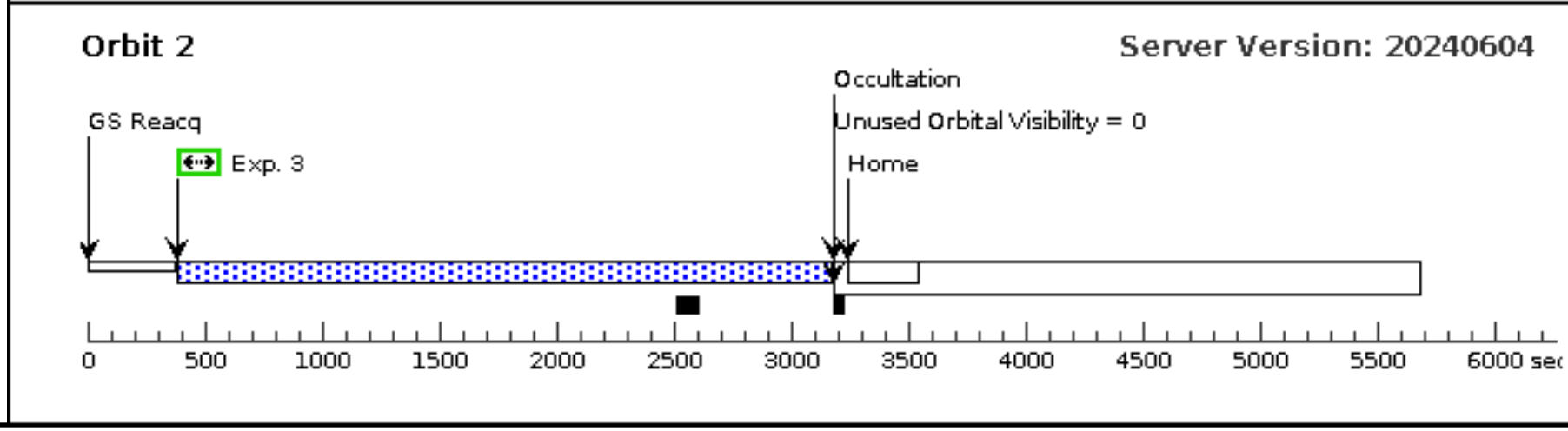
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ MIRRORB PSA (COS.ta.1933544)	(4) 2DFS3030	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				4 Secs (4 Secs) *[==>]*	 ***[1]***
2	FP-POS3 (COS.sp.1933554)	(4) 2DFS3030	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=2100; FP-POS=3			1076 Secs (2483 Secs) *[==>2483.0 Secs]*	 ***[1]***
3	FP-POS3 (COS.sp.1933554)	(4) 2DFS3030	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=2100; FP-POS=3			1076 Secs (2740 Secs) *[==>2740.0 Secs]*	 ***[2]***

Orbit Structure





Visit

Proposal 17823, 2DFS3030 COS 2/4 FP-POS4 (42), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: initial: 2480 s snr 16
subsequent: 2740 s
Need 5800 s -> 3 orbits

This target has the highest NHI. Lyman alpha absorption profile will impact Mg II line at 1240. Added extra orbit for even split between FP-POS3 and FP-POS4.
-> 2x2

ACQ needs 2 s, round up to 4 (with img mirror B PSA)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

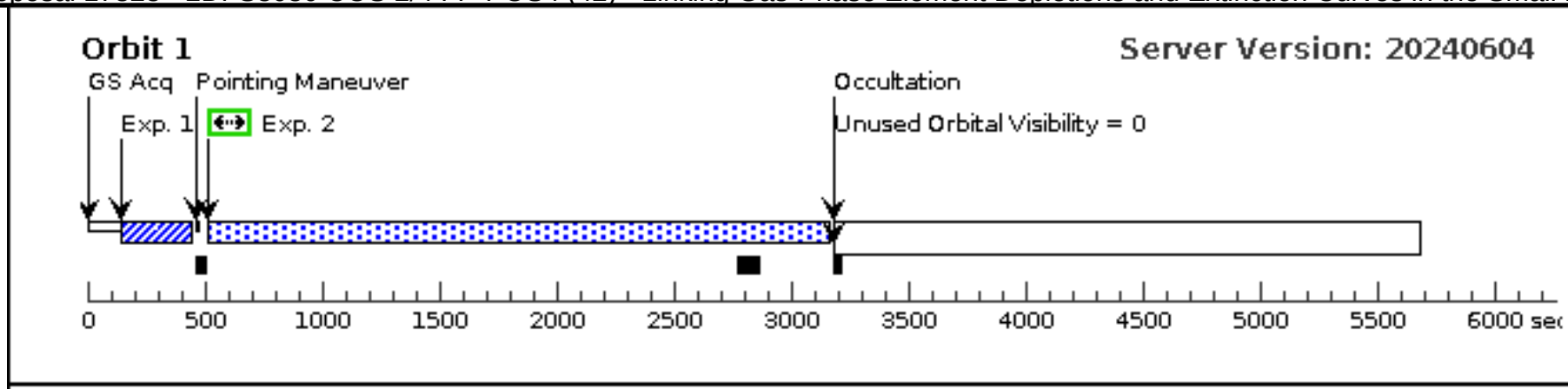
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

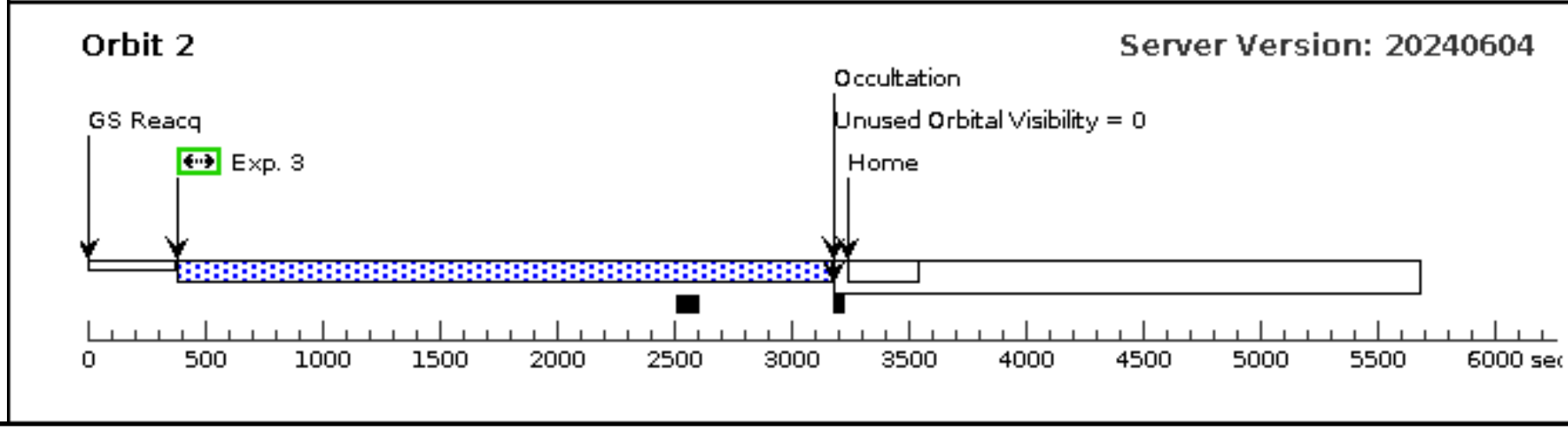
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ MIRRORB PSA (COS.ta.1933544)	(4) 2DFS3030	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				4 Secs (4 Secs) *[==>]*	 ***[1]***
2	FP-POS4 (COS.sp.1933554)	(4) 2DFS3030	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=2100; FP-POS=4			1076 Secs (2483 Secs) *[==>2483.0 Secs]*	 ***[1]***
3	FP-POS4 (COS.sp.1933554)	(4) 2DFS3030	COS/FUV, TIME-TAG, PSA	G130M 1291 A	SEGMENT=BOTH; BUFFER-TIME=2100; FP-POS=4			1076 Secs (2740 Secs) *[==>2740.0 Secs]*	 ***[2]***

Orbit Structure





Visit

Proposal 17823, AzV 023 STIS 3/3 (51), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285
subsequent 2774 snr9.5
need 5400 s -> 1x3 orbits

TA: 1 s snr250. 5.4 s saturation. I chose 1 s

Fixed Targets

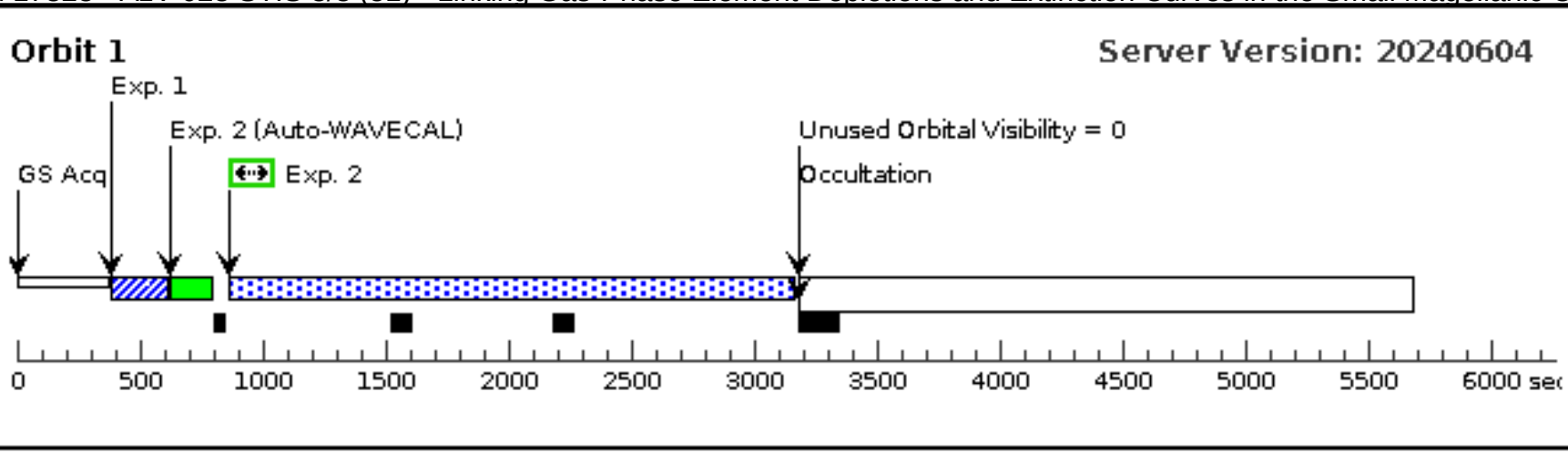
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	AZV-023	RA: 00 47 38.9029 (11.9120954d)	Proper Motion RA: 0.558 mas/yr	V=12.236	Reference Frame: ICRS
		Dec: -73 22 53.86 (-73.38163d)	Proper Motion Dec: -1.259 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

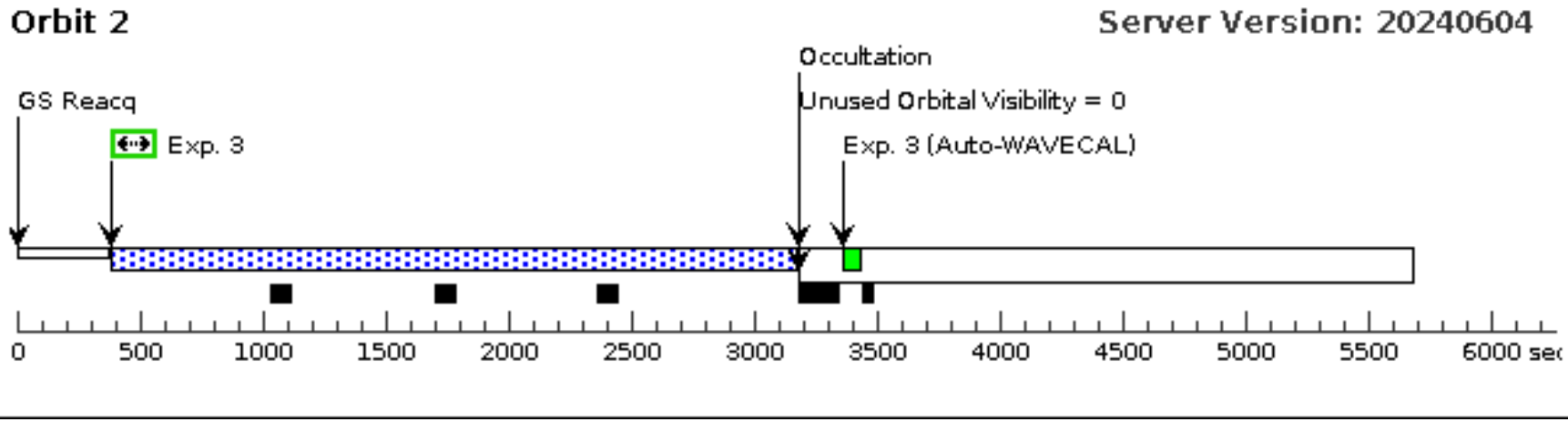
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B3-B5 III-I]
Extended=NO

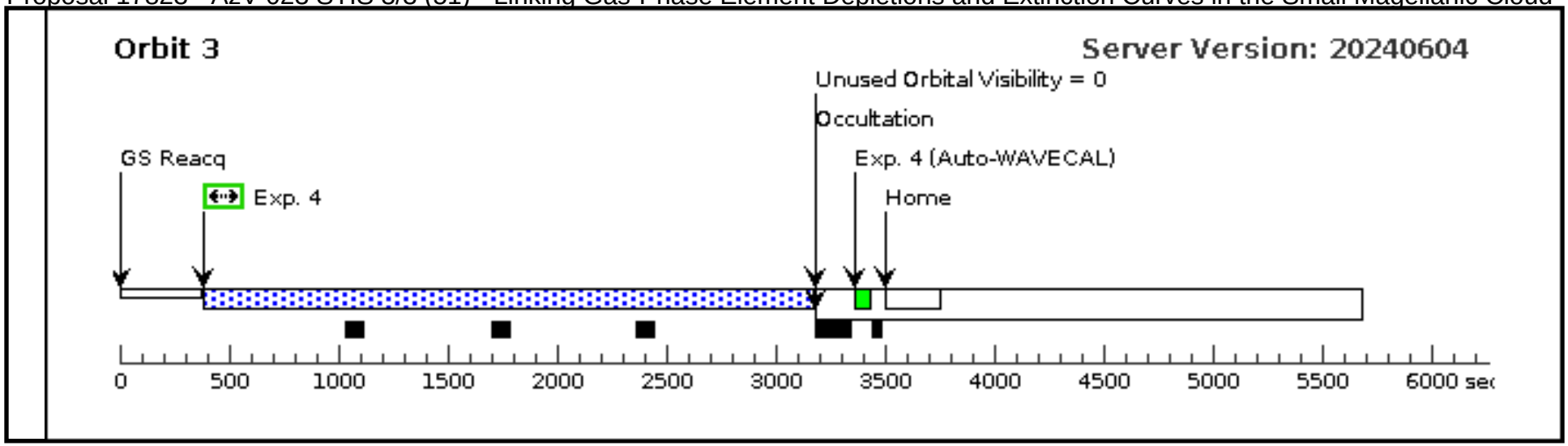
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1928427)	(1) AZV-023	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs) *[==>]*	 ***[1]***
2	fullorbit (STIS.sp.1932127)	(1) AZV-023	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=660			2000 Secs (2289 Secs) *[==>2289.0 Secs]*	 ***[1]***
3	fullorbit (STIS.sp.1932127)	(1) AZV-023	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=660			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[2]***
4	fullorbit (STIS.sp.1932127)	(1) AZV-023	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=660			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
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 17823, AzV 214 STIS 3/3 (61), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial: 2290s
subsequent: 2770s snr 8.1
need 7300 -> 1x3 orbits

Fixed Targets

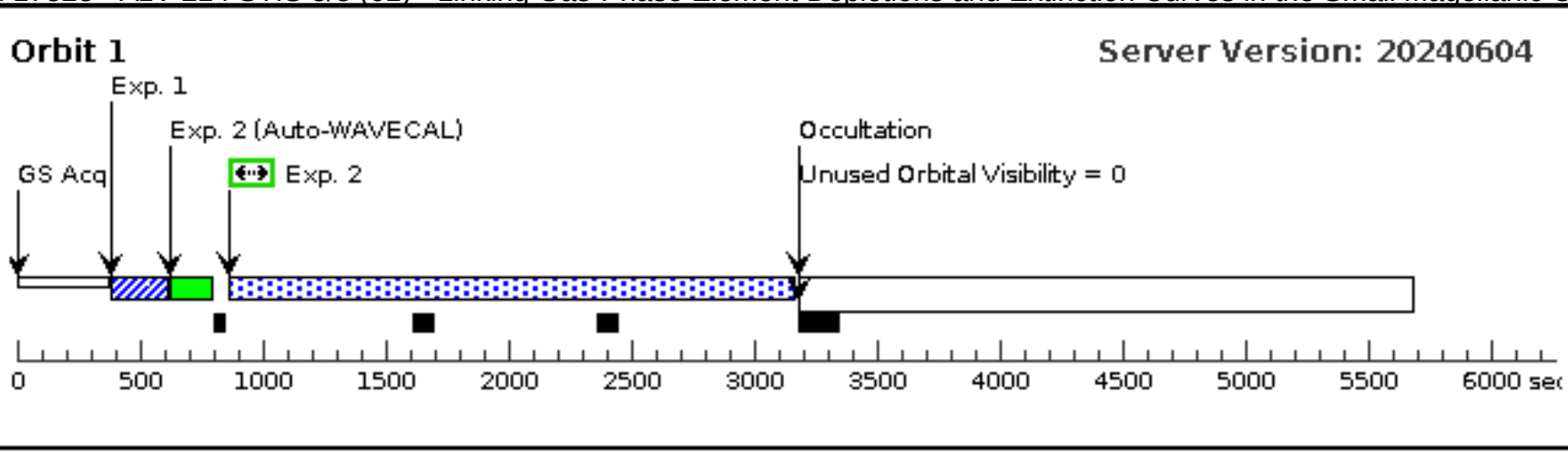
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	AZV-214	RA: 00 58 54.7802 (14.7282508d) Dec: -72 13 17.17 (-72.22144d) Equinox: J2000	Proper Motion RA: 0.566 mas/yr Proper Motion Dec: -1.229 mas/yr Epoch of Position: 2000	V=13.39	Reference Frame: ICRS

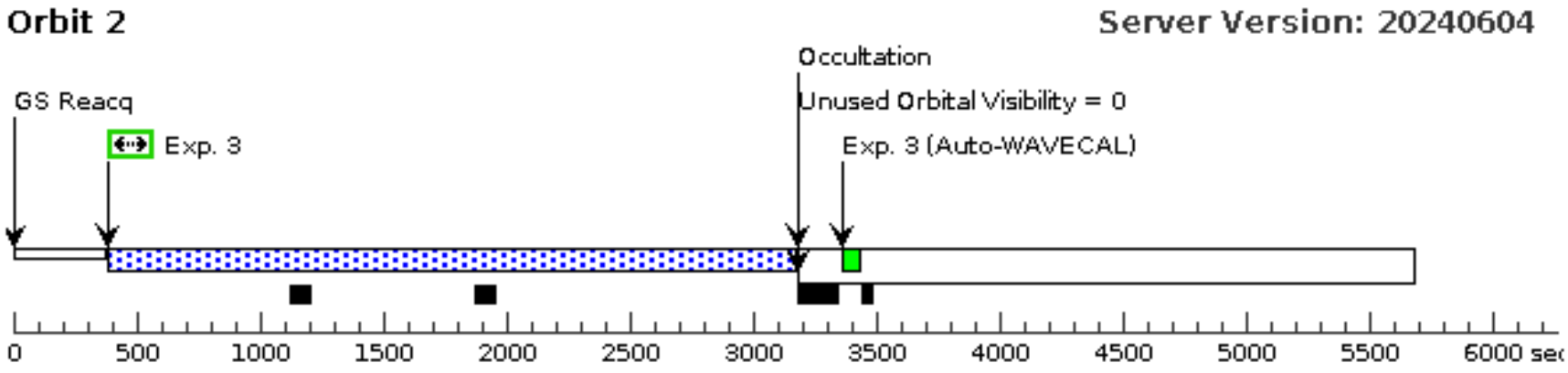
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B0-B2 III-I]
Extended=NO

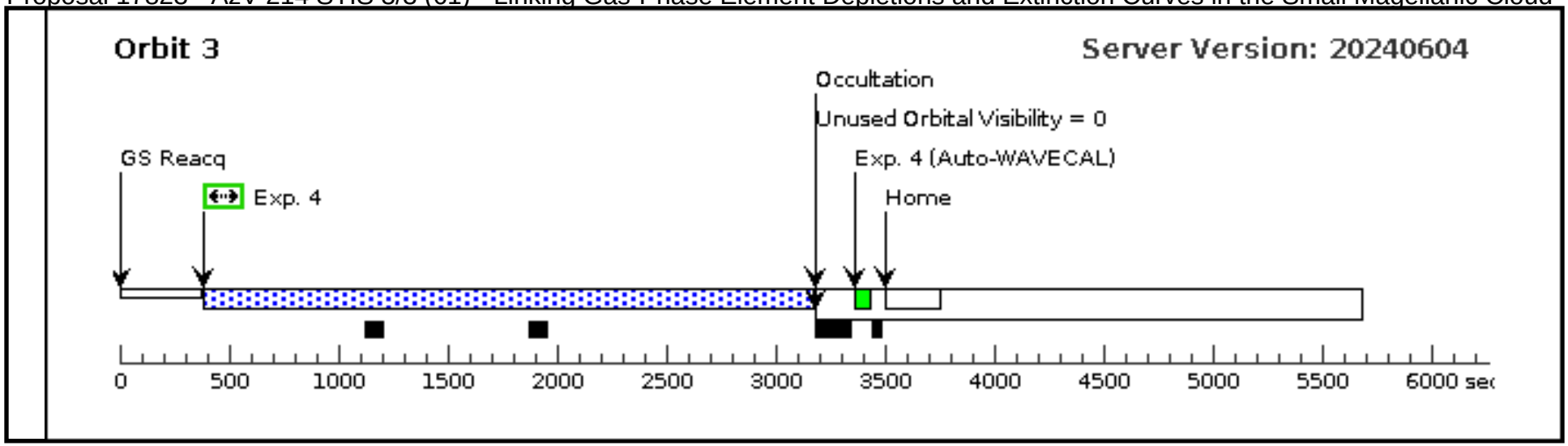
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1928429)	(2) AZV-214	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs) *[==>]*	***[1]***
2	fullorbit (STIS.sp.1932131)	(2) AZV-214	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=746			2000 Secs (2289 Secs) *[==>2289.0 Secs]*	***[1]***
3	fullorbit (STIS.sp.1932131)	(2) AZV-214	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=746			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	***[2]***
4	fullorbit (STIS.sp.1932131)	(2) AZV-214	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=746			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17823, AzV 398 STIS 3/15 (71), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285 snr
subsequent 2774 snr3.5
total per 3-orbit visit = 7837 s
need 39000 s -> 5x 3-orbit visit = 39185 s total

TA: 1 s snr109. 24 s saturation. I chose 2 s

Fixed Targets

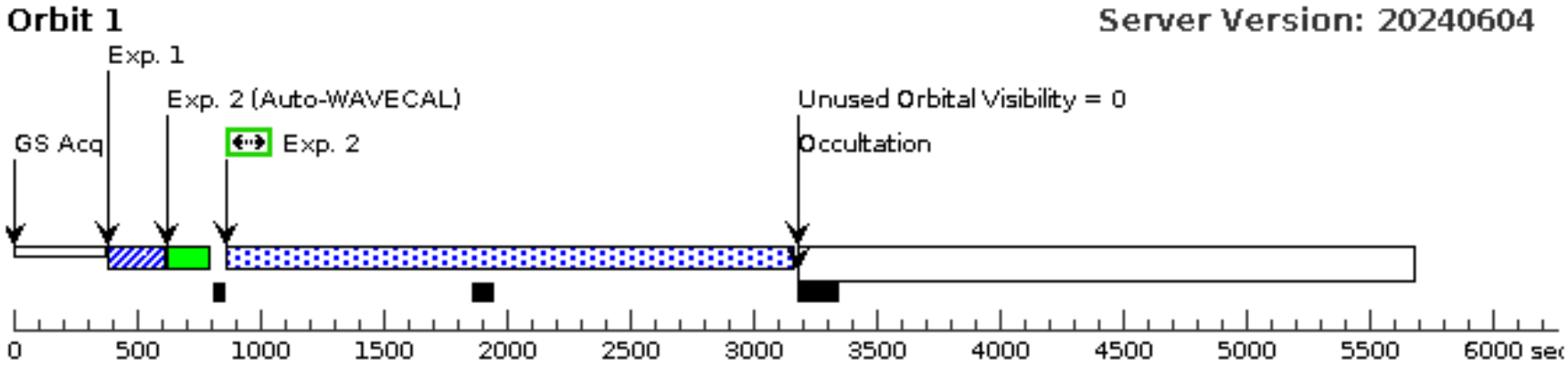
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AZV-398	RA: 01 06 9.8135 (16.5408896d)	Proper Motion RA: 0.998 mas/yr	V=13.98	Reference Frame: ICRS
		Dec: -71 56 0.75 (-71.93354d)	Proper Motion Dec: -1.102 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

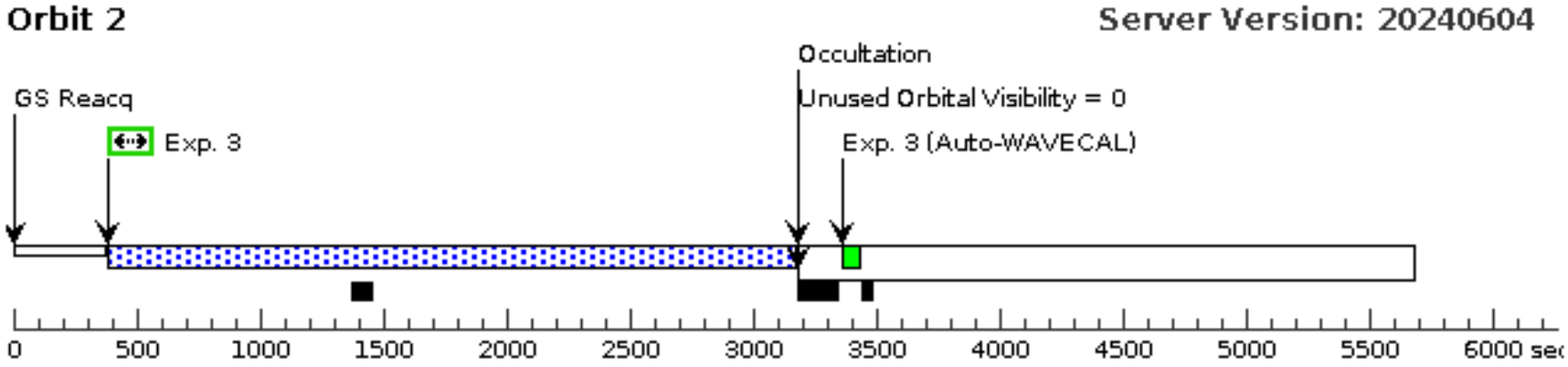
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

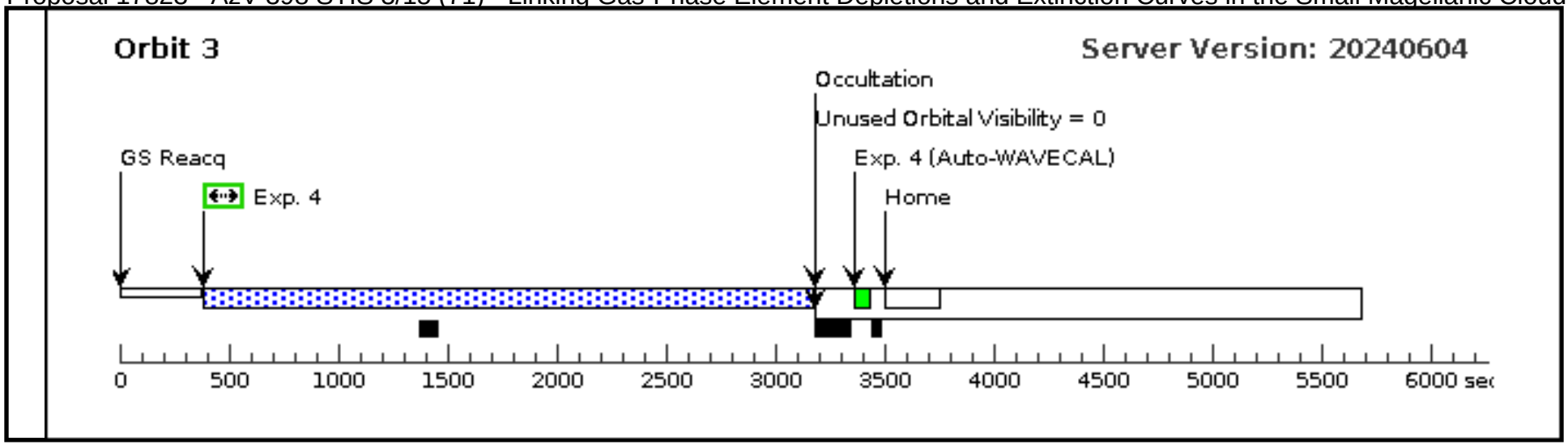
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1928432)	(3) AZV-398	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	 ***[1]***
2	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	 ***[1]***
3	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[2]***
4	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17823, AzV 398 STIS 3/15 (72), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285 snr
subsequent 2774 snr3.5
total per 3-orbit visit = 7837 s
need 39000 s -> 5x 3-orbit visit = 39185 s total

TA: 1 s snr109. 24 s saturation. I chose 2 s

Fixed Targets

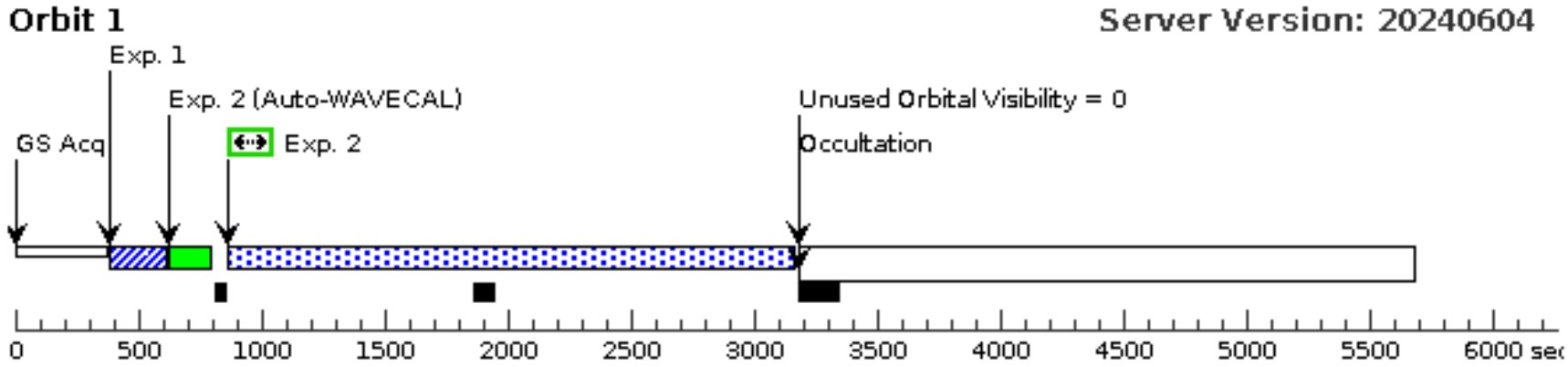
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AZV-398	RA: 01 06 9.8135 (16.5408896d)	Proper Motion RA: 0.998 mas/yr	V=13.98	Reference Frame: ICRS
		Dec: -71 56 0.75 (-71.93354d)	Proper Motion Dec: -1.102 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

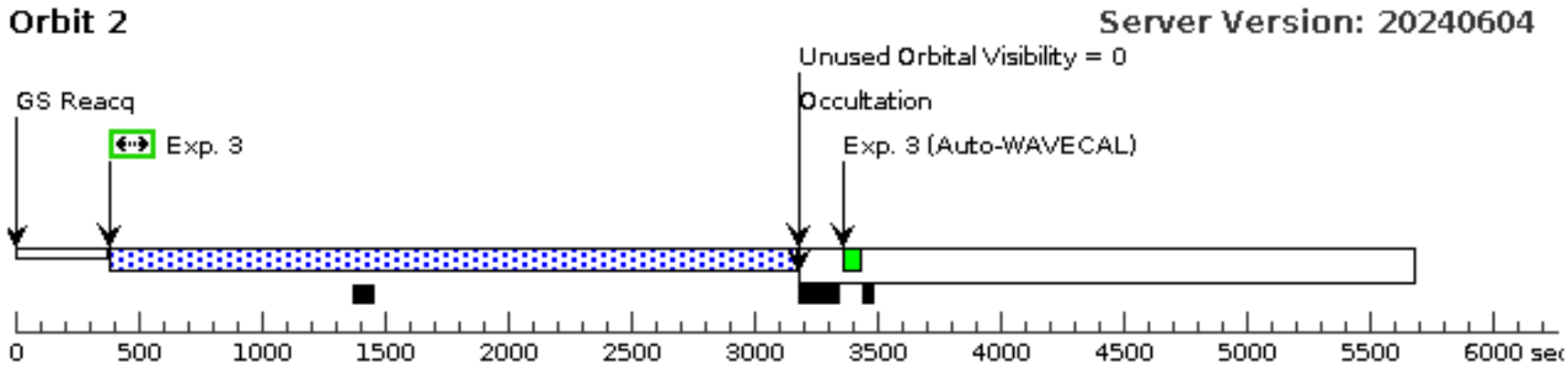
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

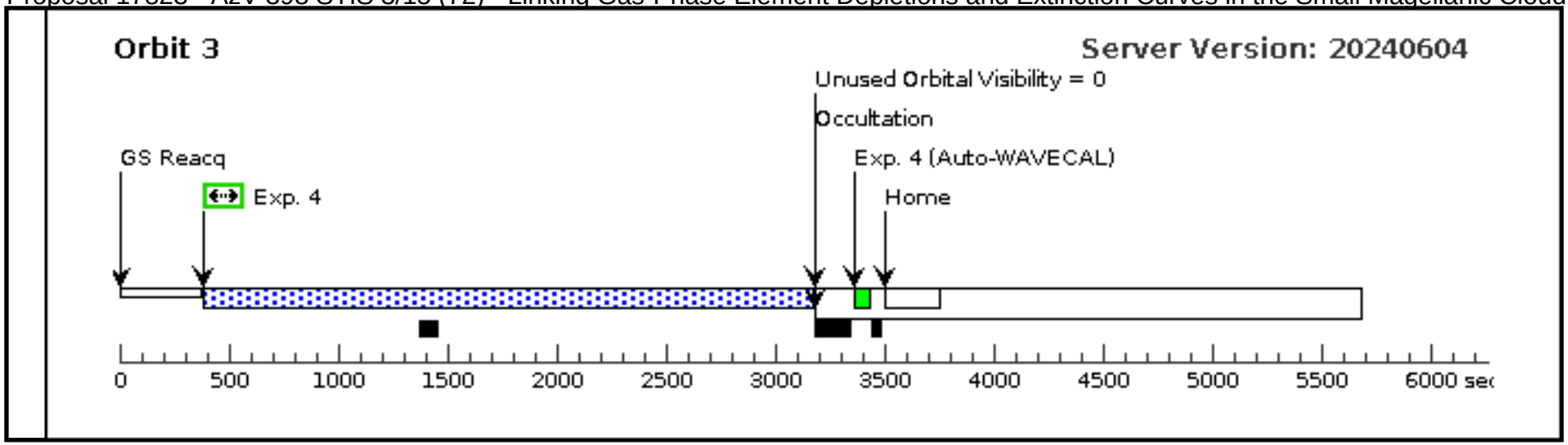
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1928432)	(3) AZV-398	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	 ***[1]***
2	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	 ***[1]***
3	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[2]***
4	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
Occultation
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
Home
0
500
1000
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3000
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4500
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5500
6000 sec

Visit

Proposal 17823, AzV 398 STIS 3/15 (73), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285 snr
subsequent 2774 snr3.5
total per 3-orbit visit = 7837 s
need 39000 s -> 5x 3-orbit visit = 39185 s total

TA: 1 s snr109. 24 s saturation. I chose 2 s

Fixed Targets

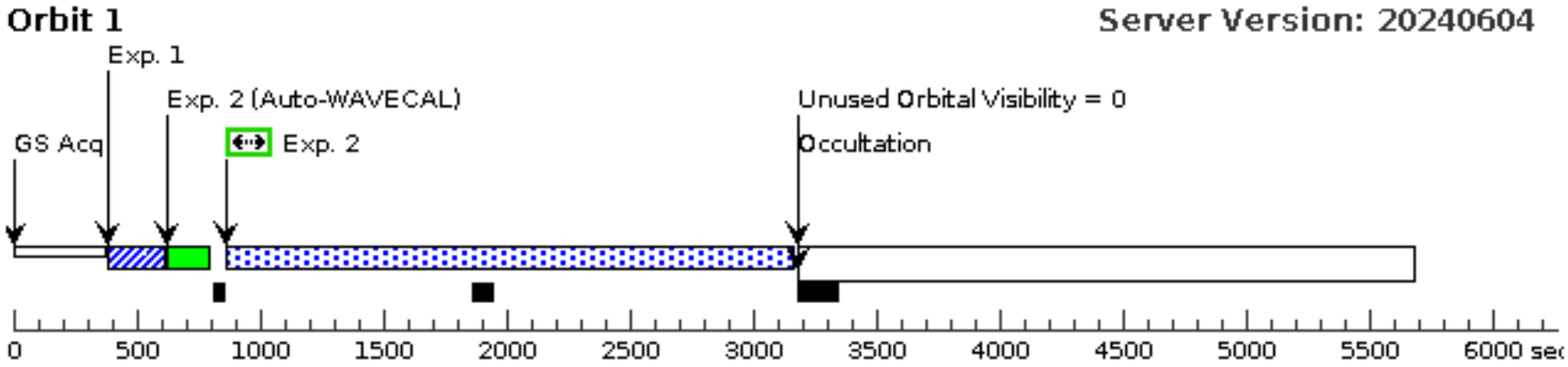
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AZV-398	RA: 01 06 9.8135 (16.5408896d)	Proper Motion RA: 0.998 mas/yr	V=13.98	Reference Frame: ICRS
		Dec: -71 56 0.75 (-71.93354d)	Proper Motion Dec: -1.102 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

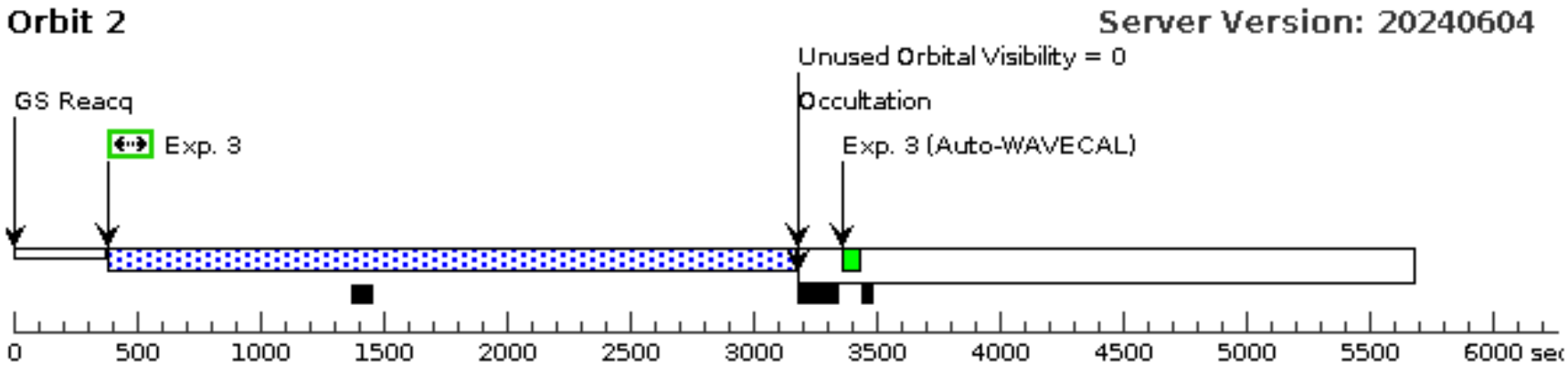
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

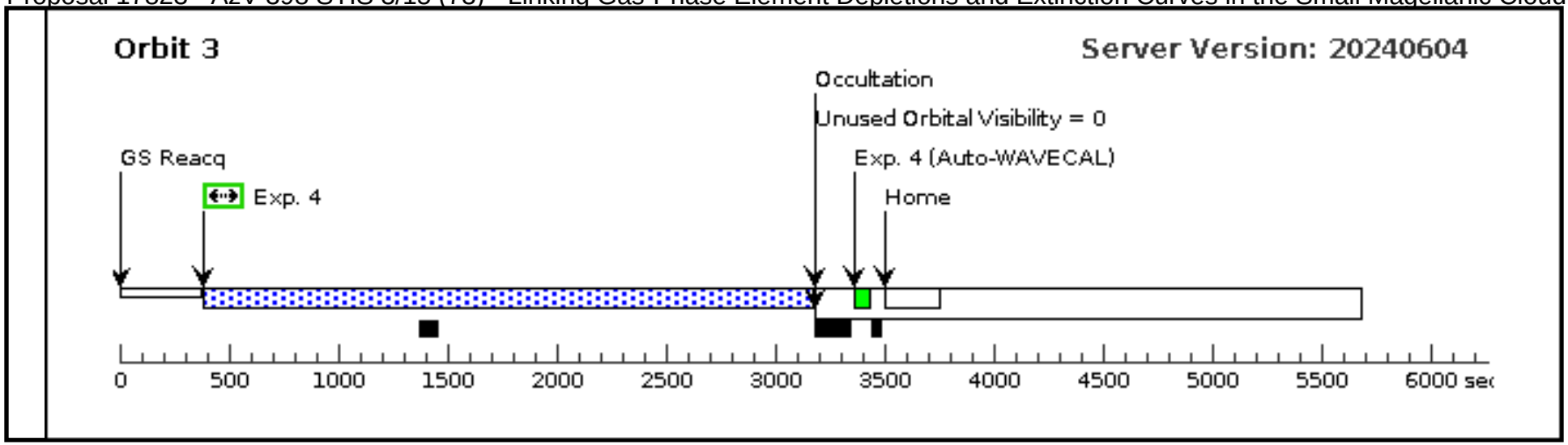
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1928432)	(3) AZV-398	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	 ***[1]***
2	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	 ***[1]***
3	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[2]***
4	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17823, AzV 398 STIS 3/15 (74), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285 snr
subsequent 2774 snr3.5
total per 3-orbit visit = 7837 s
need 39000 s -> 5x 3-orbit visit = 39185 s total

TA: 1 s snr109. 24 s saturation. I chose 2 s

Fixed Targets

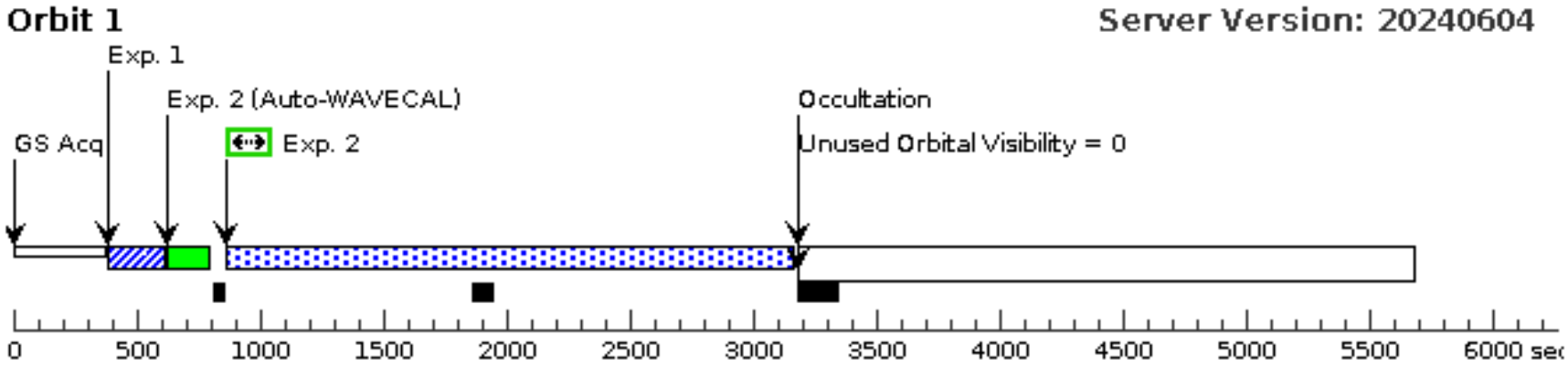
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AZV-398	RA: 01 06 9.8135 (16.5408896d)	Proper Motion RA: 0.998 mas/yr	V=13.98	Reference Frame: ICRS
		Dec: -71 56 0.75 (-71.93354d)	Proper Motion Dec: -1.102 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

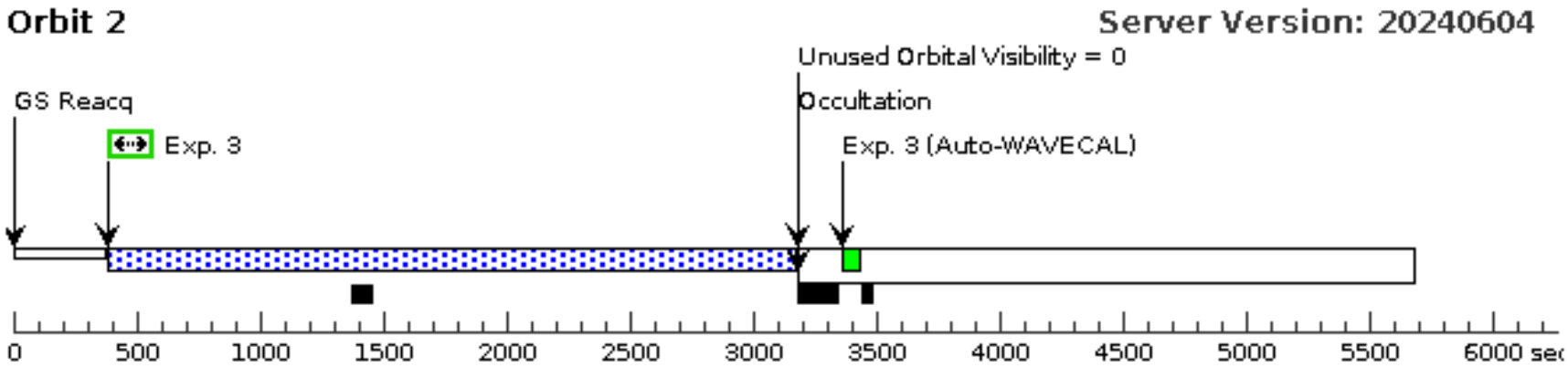
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

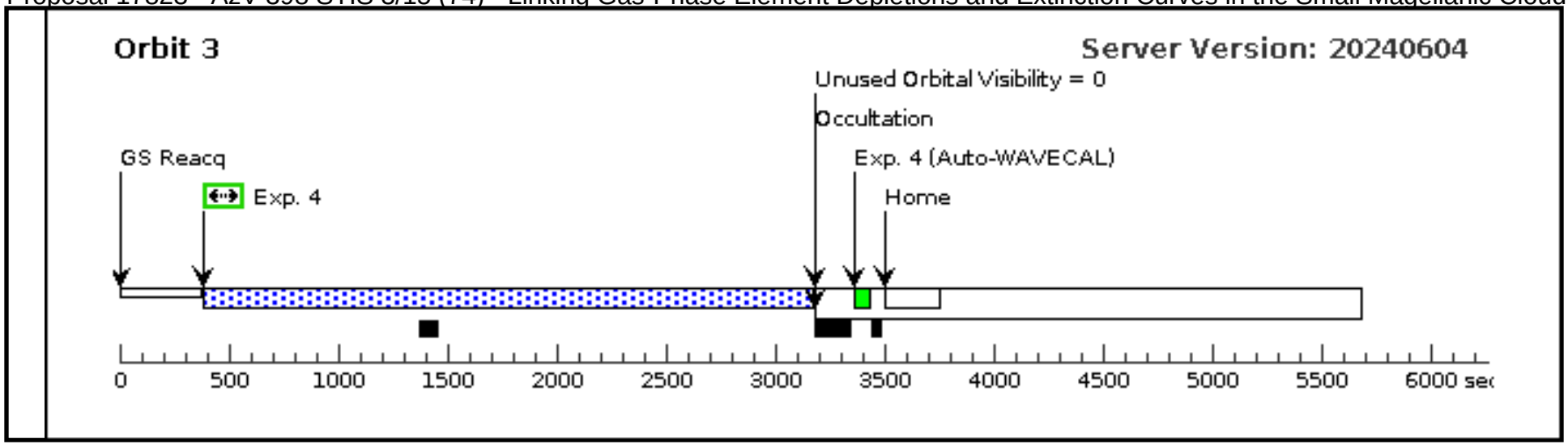
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1928432)	(3) AZV-398	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	***[1]***
2	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	***[1]***
3	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	***[2]***
4	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
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 17823, AzV 398 STIS 3/15 (75), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285 snr
subsequent 2774 snr3.5
total per 3-orbit visit = 7837 s
need 39000 s -> 5x 3-orbit visit = 39185 s total

TA: 1 s snr109. 24 s saturation. I chose 2 s

Fixed Targets

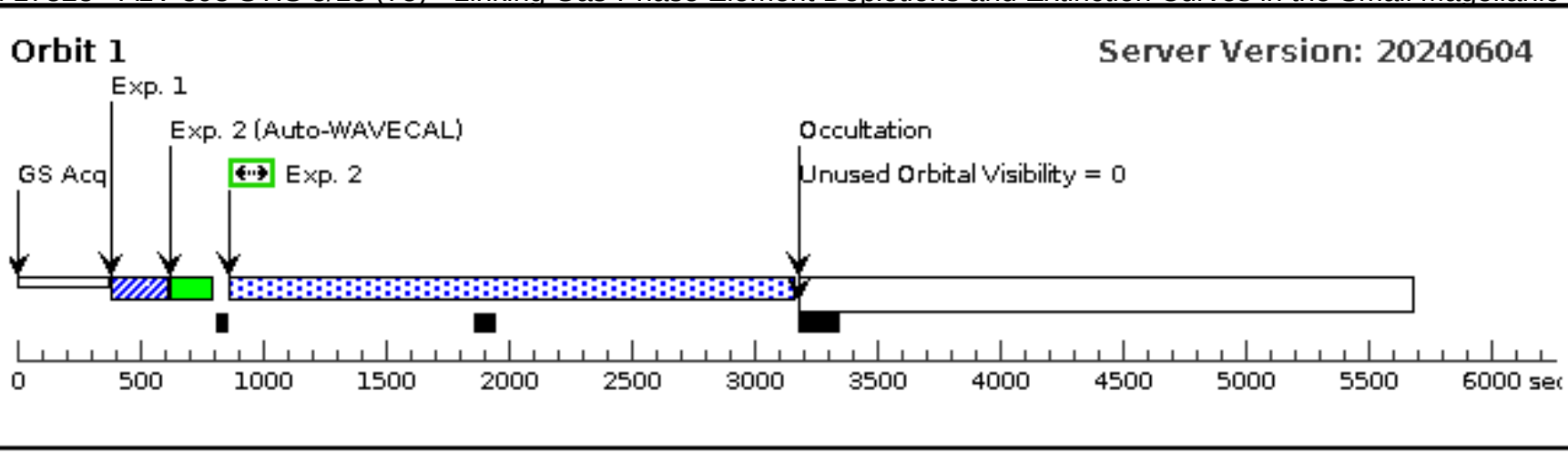
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	AZV-398	RA: 01 06 9.8135 (16.5408896d)	Proper Motion RA: 0.998 mas/yr	V=13.98	Reference Frame: ICRS
		Dec: -71 56 0.75 (-71.93354d)	Proper Motion Dec: -1.102 mas/yr		
		Equinox: J2000	Epoch of Position: 2000		

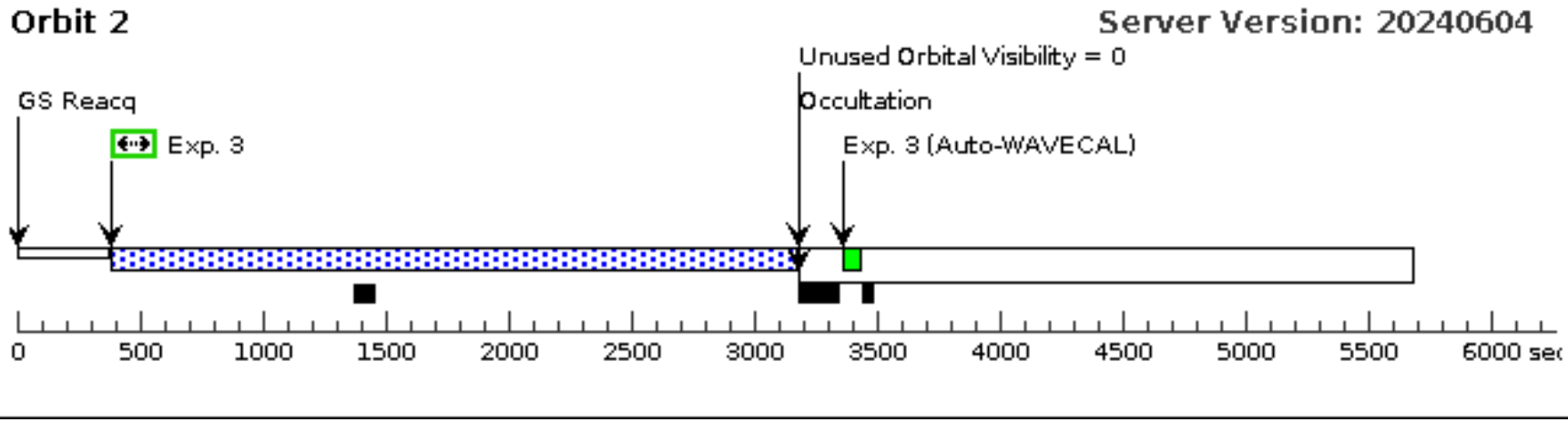
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

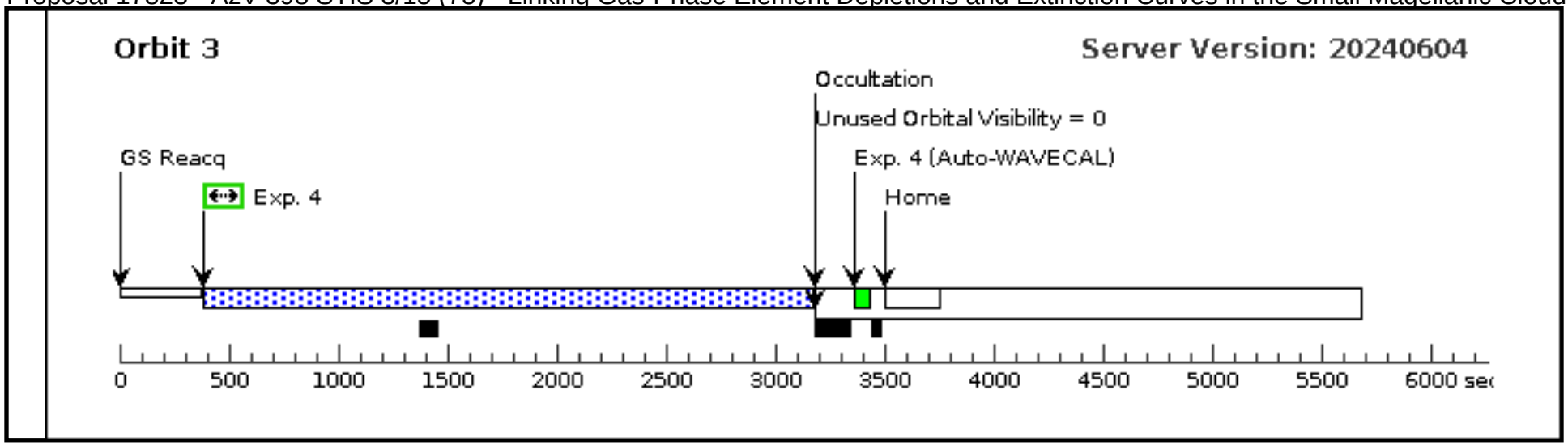
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1928432)	(3) AZV-398	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	 ***[1]***
2	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	 ***[1]***
3	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[2]***
4	fullorbit (STIS.sp.1932126)	(3) AZV-398	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	 ***[3]***

Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Home
0
500
1000
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2000
2500
3000
3500
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4500
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5500
6000 sec

Visit

Proposal 17823, 2DFS3030 STIS 3/18 (81), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285
subsequent 2774 snr3.2
need 46000 s -> 6x 3-orbit visit = 47022 s total

TA: 1 s snr 70. saturation 53.9 s. I chose 2 s

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

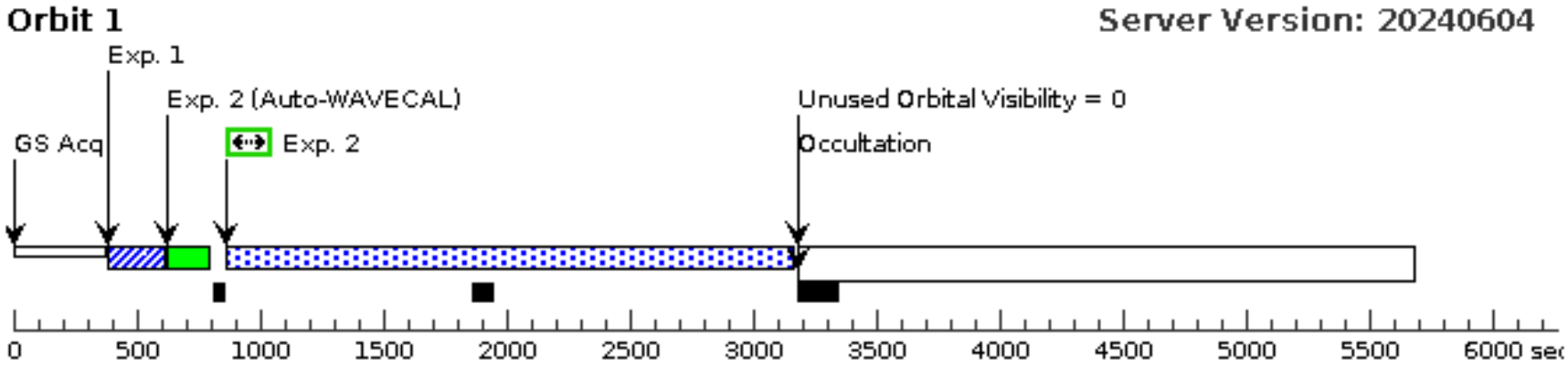
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

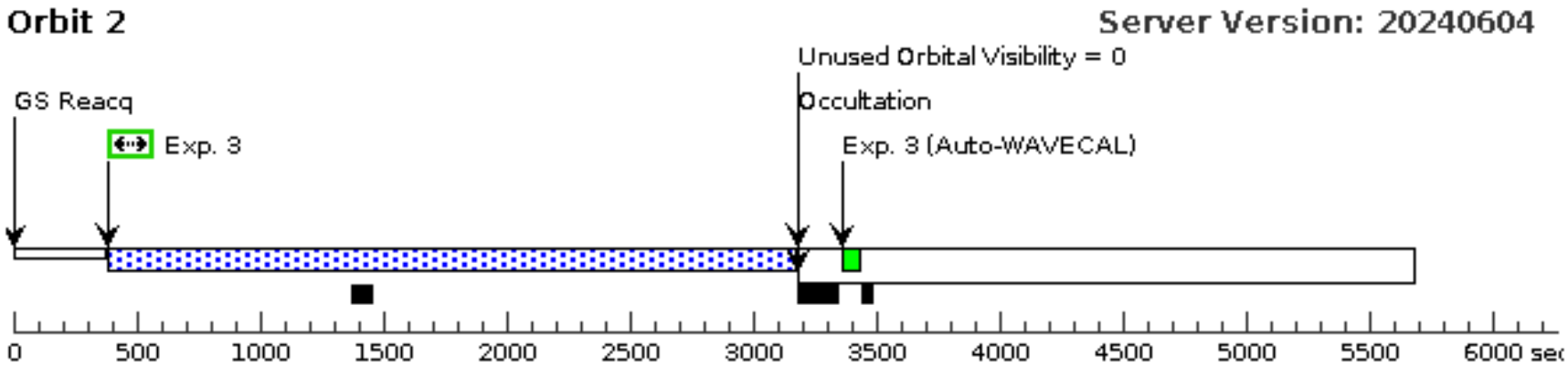
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

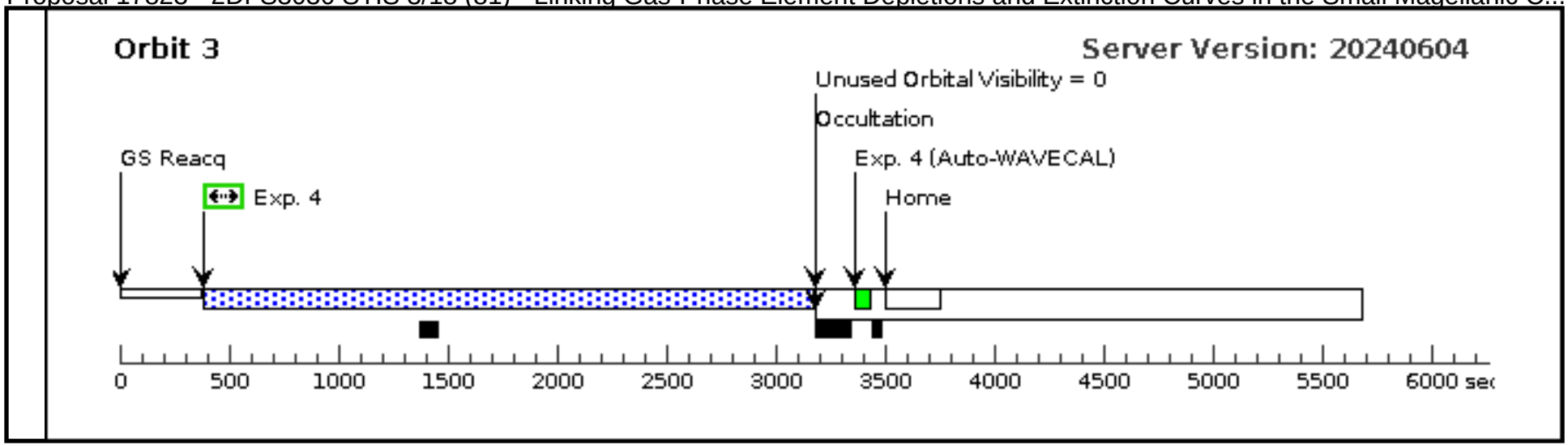
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1933645)	(4) 2DFS3030	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	*[1]*
2	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	*[1]*
3	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[2]*
4	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
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 17823, 2DFS3030 STIS 3/18 (82), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285
subsequent 2774 snr3.2
need 46000 s -> 6x 3-orbit visit = 47022 s total

TA: 1 s snr 70. saturation 53.9 s. I chose 2 s

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

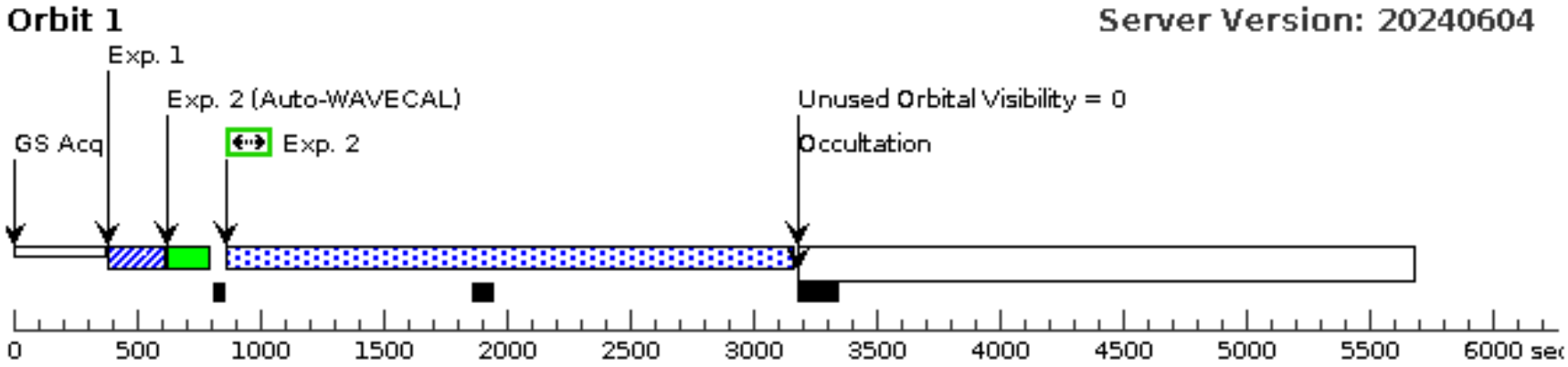
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

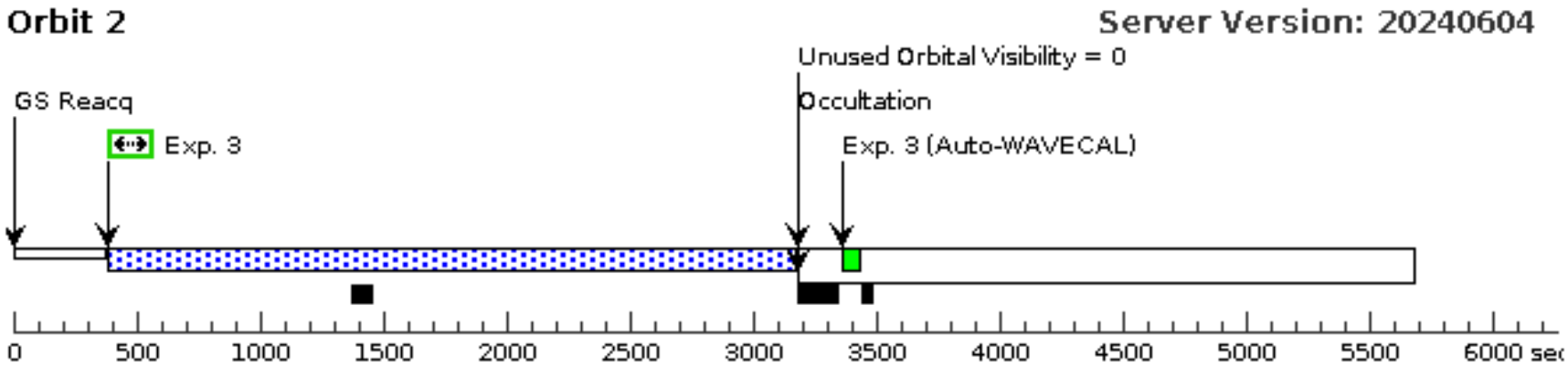
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

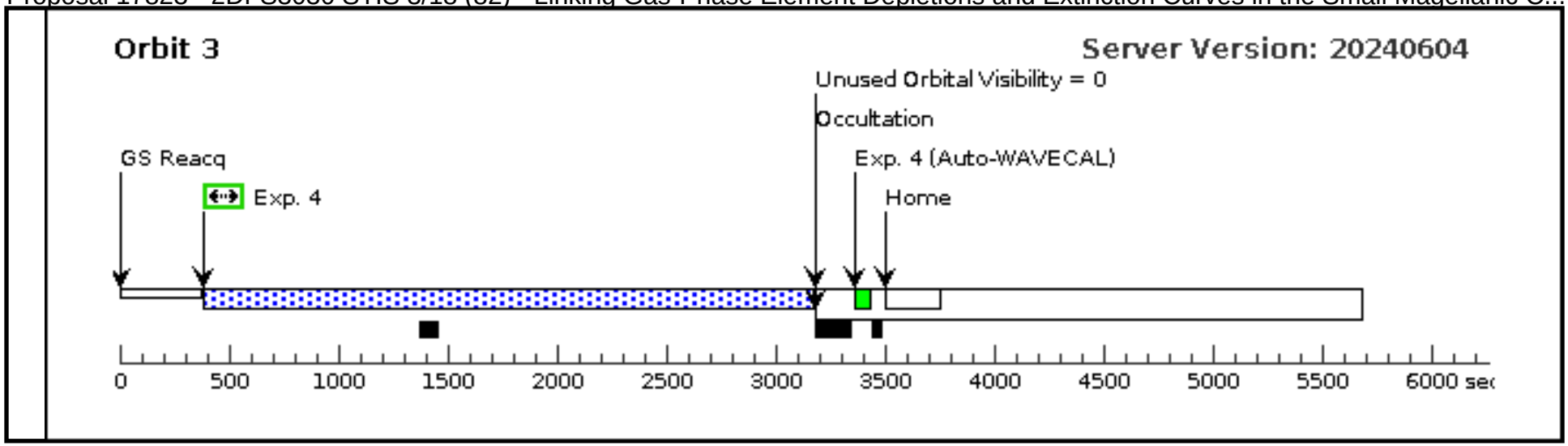
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1933645)	(4) 2DFS3030	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	*[1]*
2	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	*[1]*
3	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[2]*
4	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
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 17823, 2DFS3030 STIS 3/18 (83), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285
subsequent 2774 snr3.2
need 46000 s -> 6x 3-orbit visit = 47022 s total

TA: 1 s snr 70. saturation 53.9 s. I chose 2 s

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

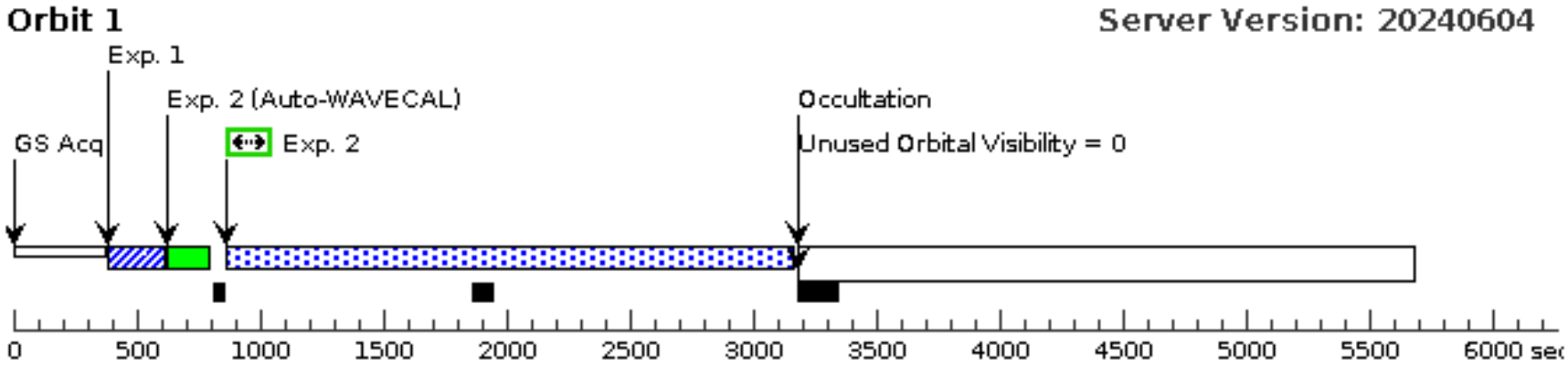
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

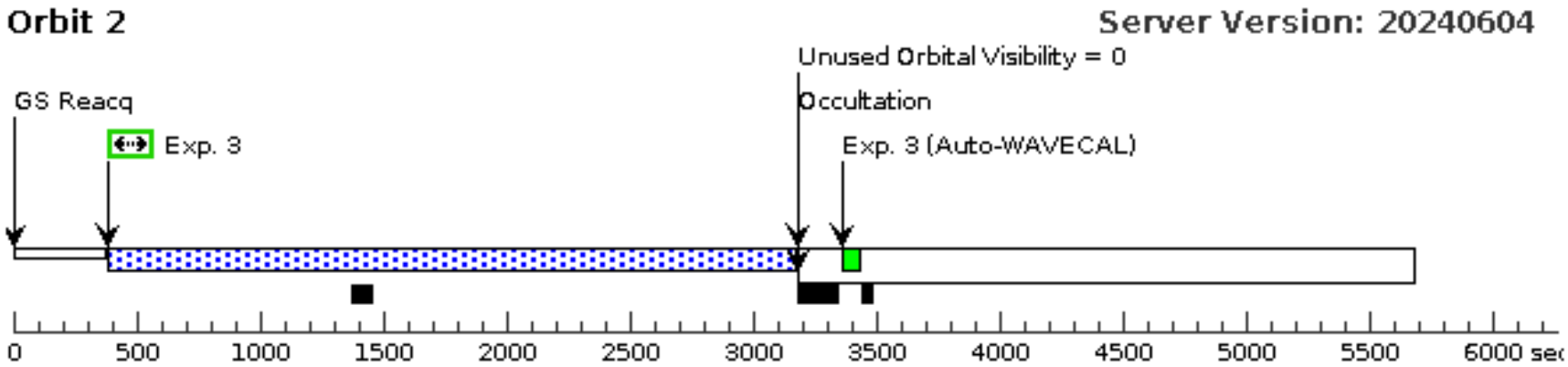
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

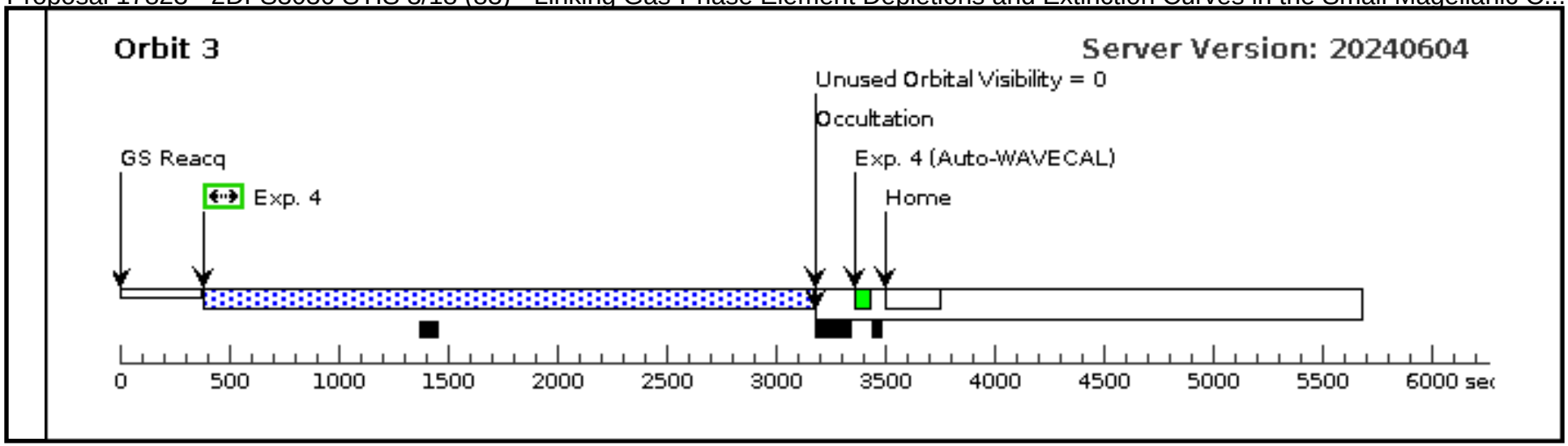
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1933645)	(4) 2DFS3030	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	*[1]*
2	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	*[1]*
3	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[2]*
4	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
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 17823, 2DFS3030 STIS 3/18 (84), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285
subsequent 2774 snr3.2
need 46000 s -> 6x 3-orbit visit = 47022 s total

TA: 1 s snr 70. saturation 53.9 s. I chose 2 s

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

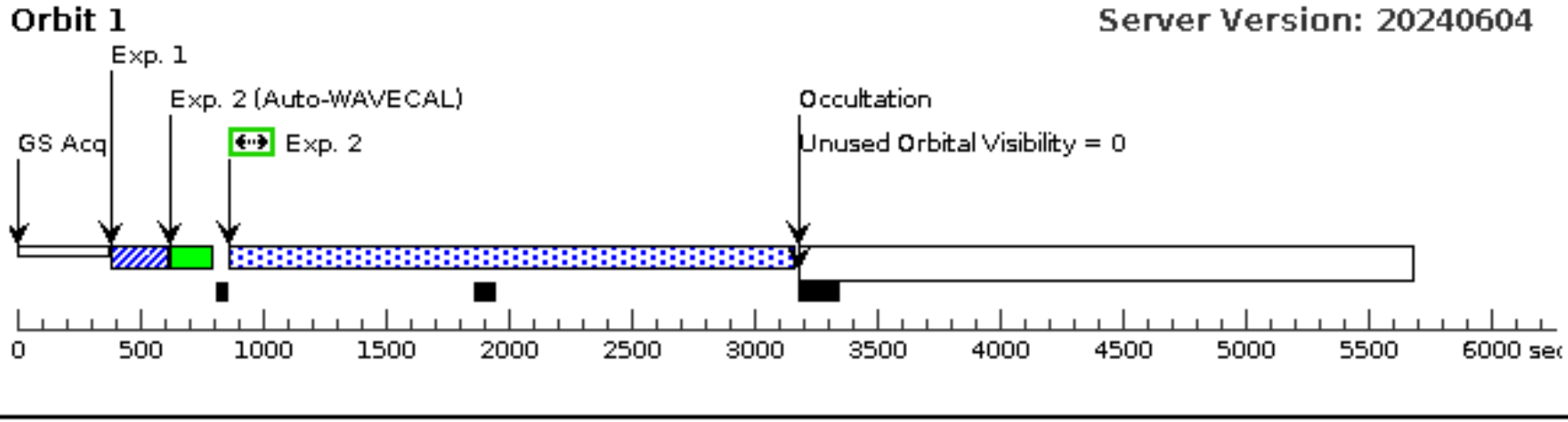
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

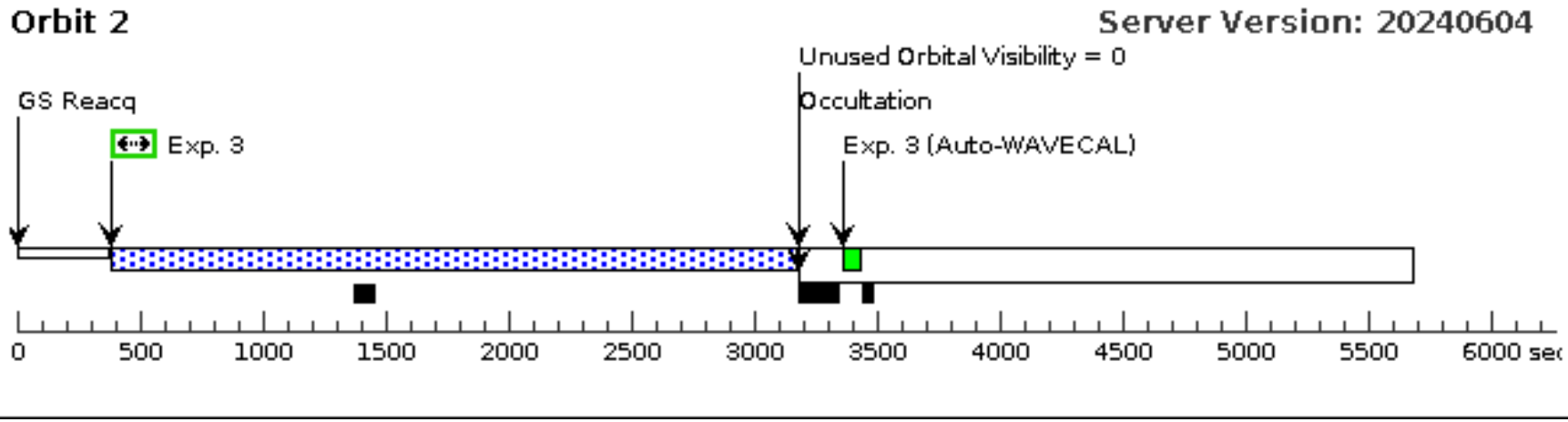
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

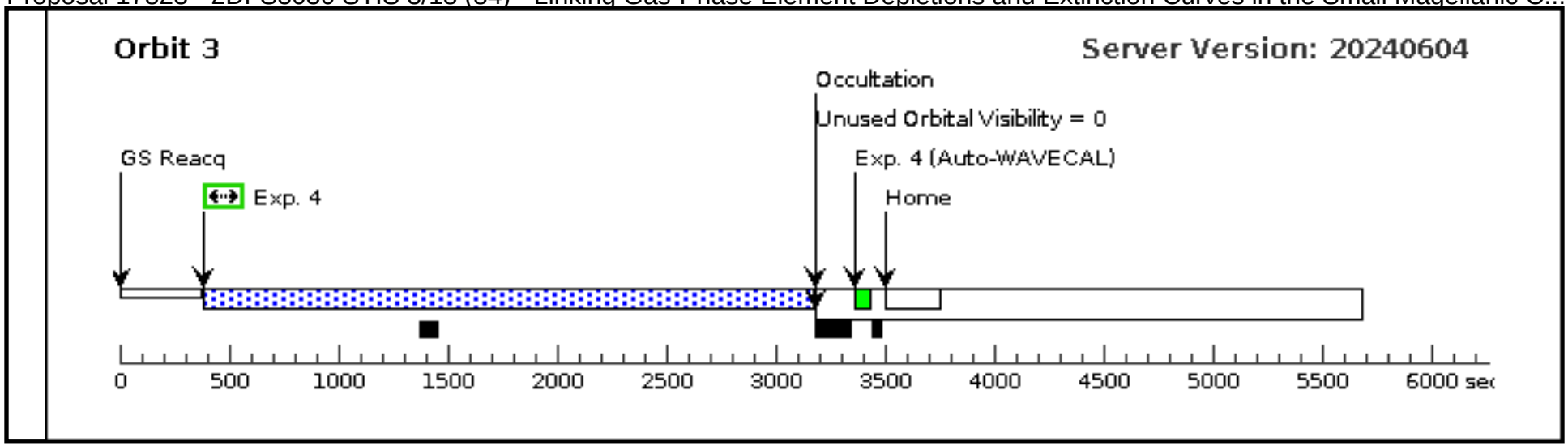
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1933645)	(4) 2DFS3030	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	*[1]*
2	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	*[1]*
3	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[2]*
4	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17823, 2DFS3030 STIS 3/18 (85), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285
subsequent 2774 snr3.2
need 46000 s -> 6x 3-orbit visit = 47022 s total

TA: 1 s snr 70. saturation 53.9 s. I chose 2 s

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

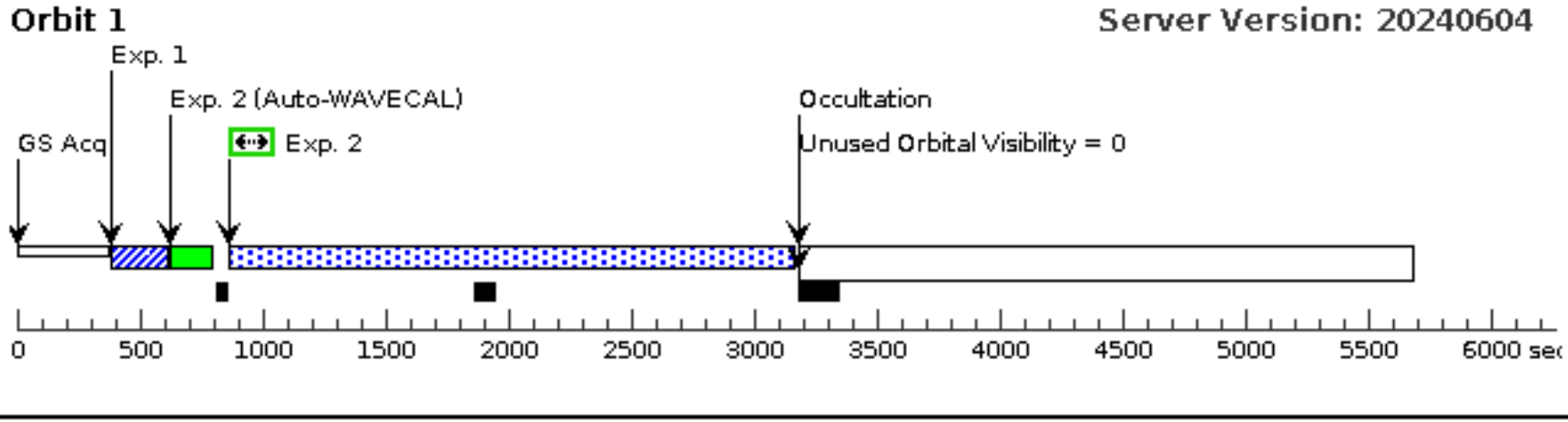
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

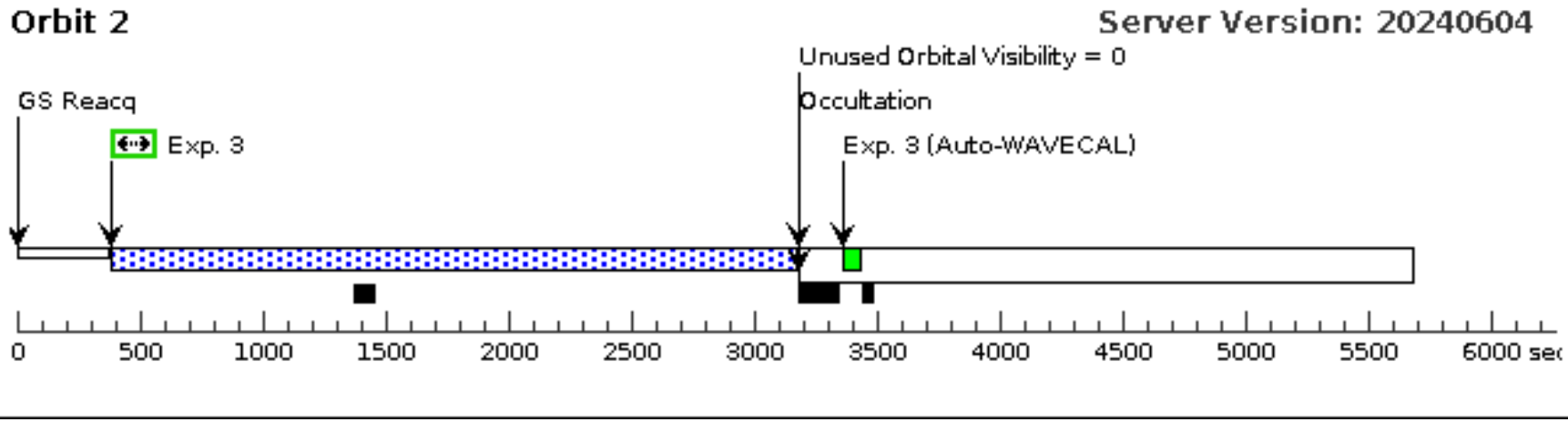
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

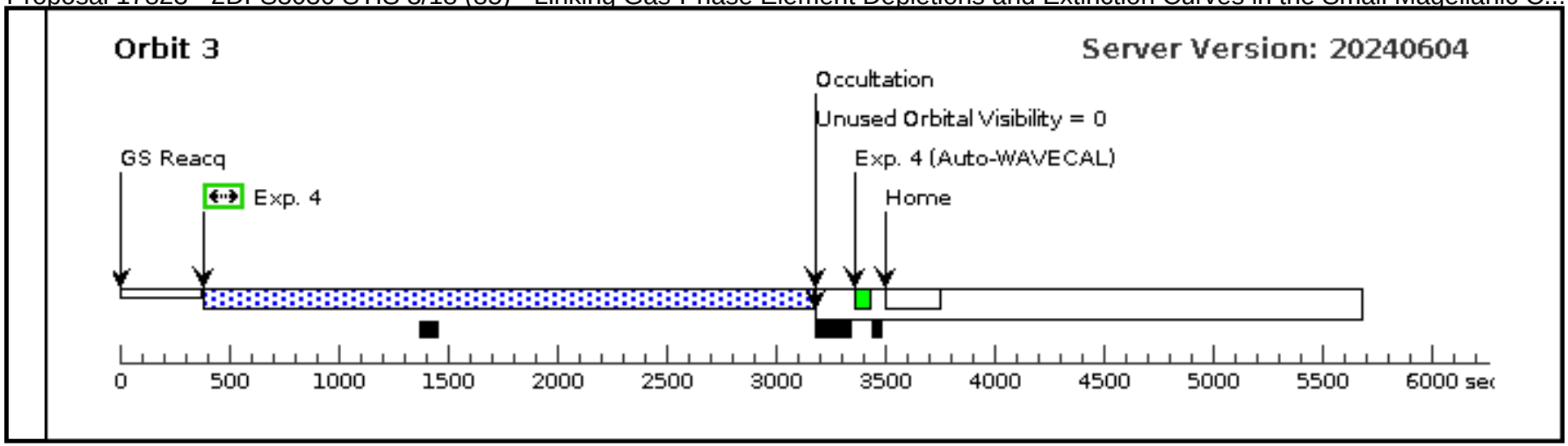
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1933645)	(4) 2DFS3030	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	*[1]*
2	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	*[1]*
3	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[2]*
4	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
Occultation
Unused Orbital Visibility = 0
GS Reacq
Exp. 4 (Auto-WAVECAL)
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17823, 2DFS3030 STIS 3/18 (86), scheduling Thu Jan 02 16:00:28 GMT 2025

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: initial 2285
subsequent 2774 snr3.2
need 46000 s -> 6x 3-orbit visit = 47022 s total

TA: 1 s snr 70. saturation 53.9 s. I chose 2 s

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	2DFS3030	RA: 01 14 40.1409 (18.6672538d) Dec: -73 16 14.54 (-73.27071d) Equinox: J2000	Proper Motion RA: 0.961 mas/yr Proper Motion Dec: -1.2029999652440893 mas/yr Epoch of Position: 2000	V=15.04	Reference Frame: ICRS

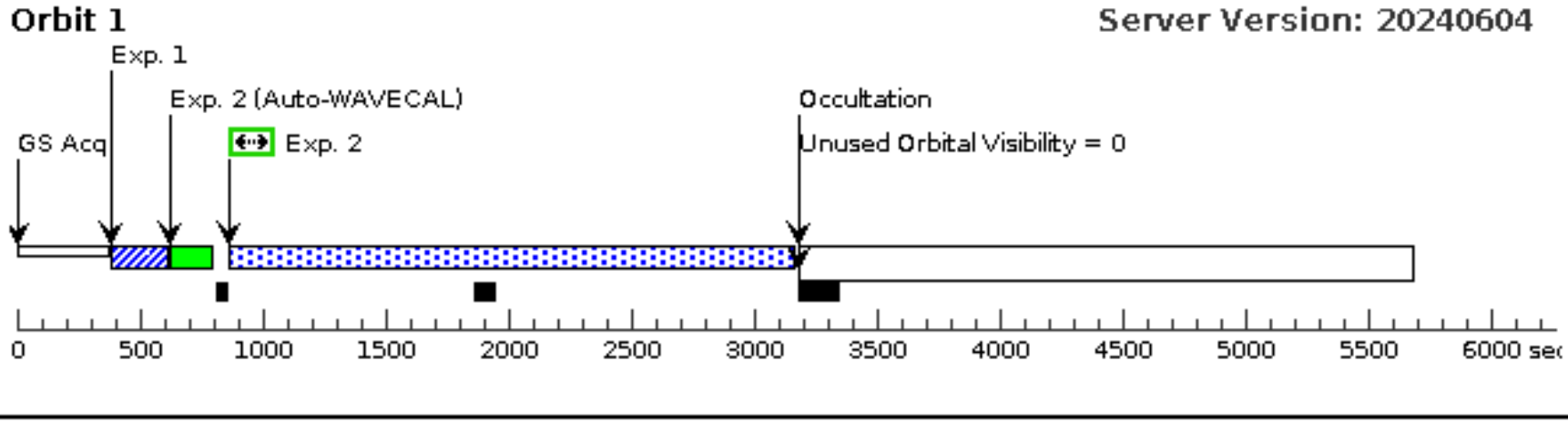
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

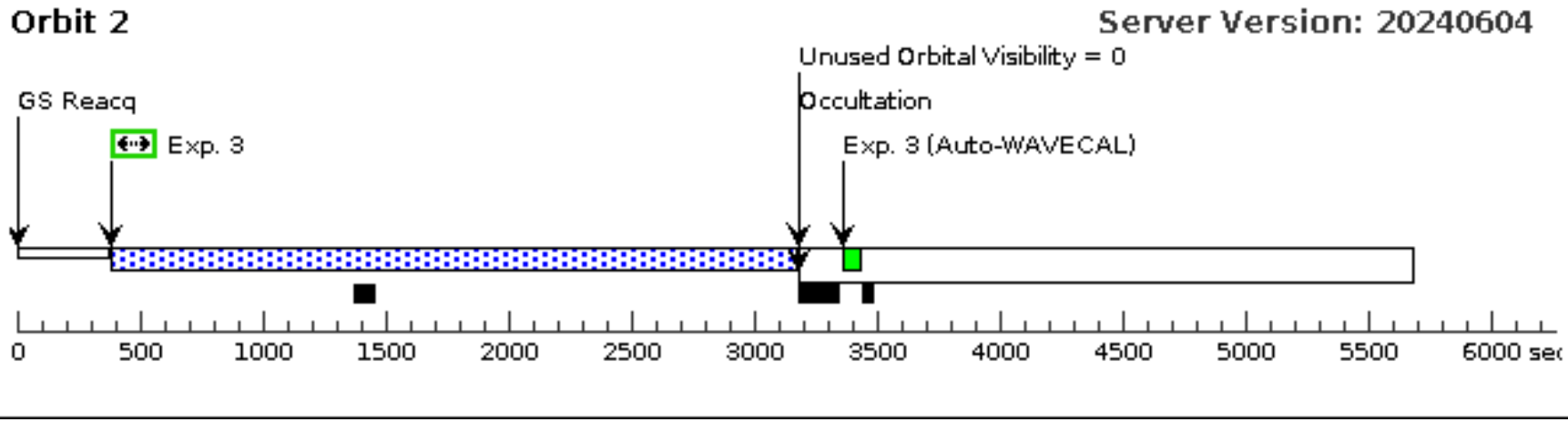
SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.
Category=STAR
Description=[SUPERGIANT O]
Extended=NO

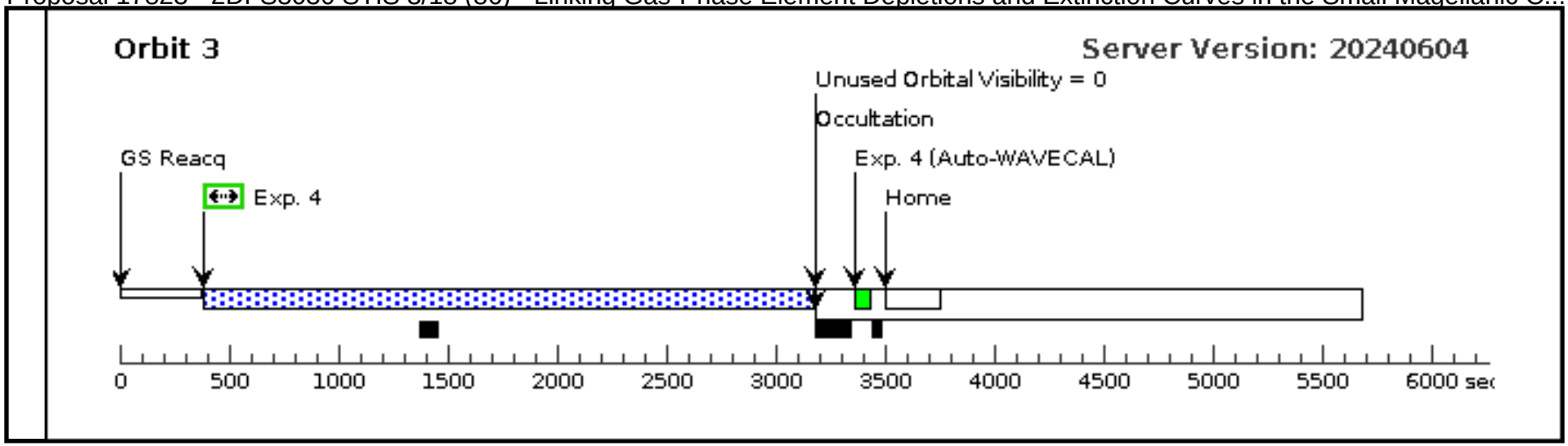
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.1933645)	(4) 2DFS3030	STIS/CCD, ACQ, F28X50LP	MIRROR				2 Secs (2 Secs) *[==>]*	*[1]*
2	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2285 Secs) *[==>2285.0 Secs]*	*[1]*
3	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[2]*
4	fullorbit (STIS.sp.1933653)	(4) 2DFS3030	STIS/NUV-MAMA, TIME-TAG, 0.2X0.2	E230M 1978 A	BUFFER-TIME=1000			2000 Secs (2774 Secs) *[==>2774.0 Secs]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20240604
Unused Orbital Visibility = 0
Occultation
GS Reacq
Exp. 4
Exp. 4 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec