17752 - Exploring the Origin of Gas in Debris Disks around A and B-type Stars

Cycle: 32, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) -GAM-TRI	STIS/CCD STIS/FUV-MAMA	2	09-Oct-2025 10:00:17.0	yes
02	(2) HD-36546	STIS/CCD STIS/FUV-MAMA	2	09-Oct-2025 10:00:18.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
03	(3) HD-38206	STIS/CCD STIS/FUV-MAMA	2	09-Oct-2025 10:00:19.0	yes
53	(3) HD-38206	STIS/CCD STIS/FUV-MAMA	2	09-Oct-2025 10:00:19.0	yes
04	(5) HD-158352	STIS/CCD STIS/FUV-MAMA	5	09-Oct-2025 10:00:21.0	yes
05	(6) HD-143675	STIS/CCD STIS/FUV-MAMA	2	09-Oct-2025 10:00:22.0	yes
06	(7) HD-32297	STIS/CCD STIS/FUV-MAMA	5	09-Oct-2025 10:00:24.0	yes
07	(7) HD-32297	STIS/CCD STIS/FUV-MAMA	5	09-Oct-2025 10:00:25.0	yes
08	(4) HD-98363	STIS/CCD STIS/FUV-MAMA	3	09-Oct-2025 10:00:26.0	yes

28 Total Orbits Used

ABSTRACT

Debris disks, which evolve from protoplanetary disks, were traditionally thought to be dust-poor and devoid of gas. However, recent ALMA surveys have revealed that at least 20 debris disks contain gas. Understanding the prevalence, origin, and evolution of this gas is crucial for studying the planetary systems' formation and evolution. The two leading origin theories propose that either the gas is primordial and therefore a remnant of the previous protoplanetary stage or second-generation and produced by the collisional cascade process. Thus far, the only detected molecule is CO, which quickly photodissociates if unshielded, producing neutral carbon (C I). In a primordial scenario, H2 shields CO against photodissociation, while in a secondary scenario, C I plays a pivotal role as a shielding agent. Our proposal aims to conduct a comprehensive survey of CO and C I gas in edge-on debris disks orbiting A and B-type stars, targeting seven disks not already observed by HST at sufficient sensitivity. Leveraging the sensitivity of HST/STIS far-UV absorption spectroscopy, we seek to detect cold gas co-located with dust disks at tens of AU. By detecting multiple transitions of CO and C I, we aim to accurately constrain their column densities and temperatures along the line of sight. We will then explore the systematic relationship between the C I/CO ratio and C I column density to determine whether C I is shielding CO in the high CO debris disk population, thereby confirming or refuting a secondary origin for the high CO mass disk population.

OBSERVING DESCRIPTION

Our goal is to carry out a UV spectroscopic line survey of the edge-on exocometary belts around bright (A and B-type), detecting several different transitions of C I and CO. We will target two sets of C I lines transitions at 1613 A and 1657 A with differing oscillator strengths, as well as a several CO bands containing tens of lines, including strong A-X bands and weaker intersystem bands. Covering these bands and lines with a variety of oscillator strengths at once will give us the best constraints on the C I and CO column density and temperature in these systems.

We request the use of STIS due to its resolving power (R=114000). At the velocity resoutions of 2.6 km/s, we expect all transition lines to be unresolved unless heavily saturated, as the gas is expected to be cold (tens of K). We request the use of STIS using the E140H grating (i 1562) with the narrow spectroscopic slit (0.2 x 0.09) recommended for the highest spectral resolution gratings and for minimizing airglow contamination. This will allow us to cover the main CO band A-X 0-0 (1544 A), 1-0 (1510 A) and 2-0 (1478 A) bands, as well as the weaker CO bands at (1464 A), (1470 A), (1480 A), (1486 A), (1493 A), (1503 A), (1517 A), (1526 A), (1535 A), (1551 A), (1526 A), (1535 A), (1551 A), (1577 A), (1588 A), (1605 A), and lines of C I (1613 A) and (1657 A).

We note that the high resolution of STIS will also allow us to disentangle ISM lines if also present, although ISM components were not detected for CO and C I for the three systems already observed, so we don't anticipate this being an issu

Visit

Proposal 17752, GAM-TRI (01), completed Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(GAM-TRI (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(GAM-TRI (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

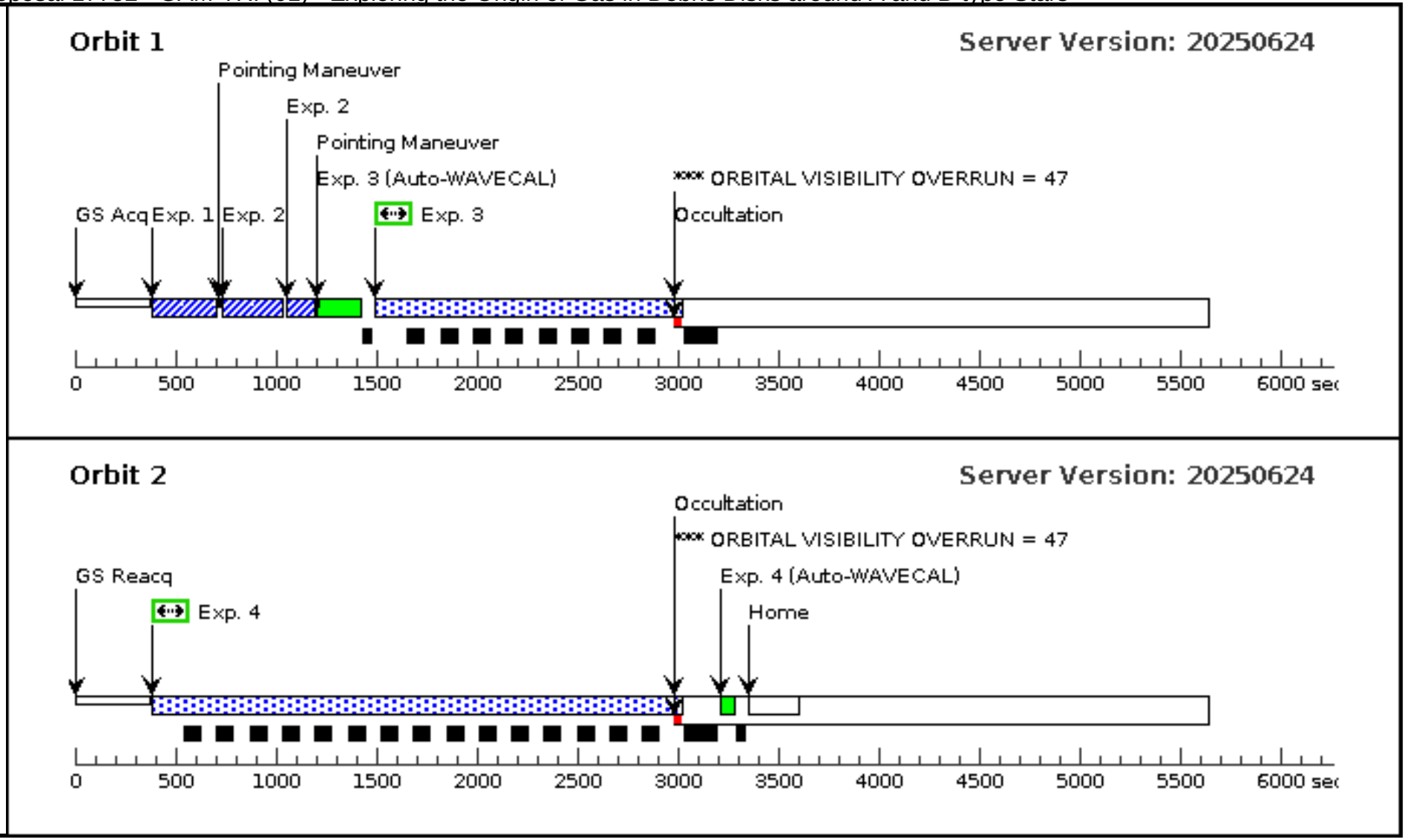
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	-GAM-TRI Alt Name1: HD14055	RA: 02 17 18.8673 (34.3286138d) Dec: +33 50 49.91 (33.84720d) Equinox: J2000	Proper Motion RA: 45.253 mas/yr Proper Motion Dec: -52.685 mas/yr Parallax: 0.0279795" Epoch of Position: 2000	V=4.0+/-.01 ohnson U=4.05+-0.01 mag. Model fits to Johnson U, B, V, Stromgren v, y, Tycho B, V, Gaia DR2, G, RP, 2MASS, J, H yields: Teff=9000(-800, +450) K, A_V=0.02(-0.02, +0.09), predicted flux at 1562 A = 7.79e -12 erg / s / cm^2 / A	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Please see the proposal description for how stellar parameters were derived. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A4-A9 V-IV, CIRCUMSTELLAR MATTER, DISK]
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	(1) -GAM-TRI	STIS/CCD, ACQ, F25ND5	MIRROR	ACQTYPE=POINT			7 Secs (7 Secs) *[==>]*	 ***[1]***
2	ACQ PEAK	(1) -GAM-TRI	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				0.4 Secs (0.4 Secs) *[==>]*	 ***[1]***
3	TIME TAG (1929612)	(1) -GAM-TRI	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=163			1496 Secs (1510 Secs) *[==>1510.0 Secs]*	 ***[1]***
4	TIME TAG (1929612)	(1) -GAM-TRI	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=163			2624 Secs (2624 Secs) *[==>]*	 ***[2]***

Orbit Structure



Visit

Proposal 17752, HD36546 (02), scheduled Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD36546 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD36546 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

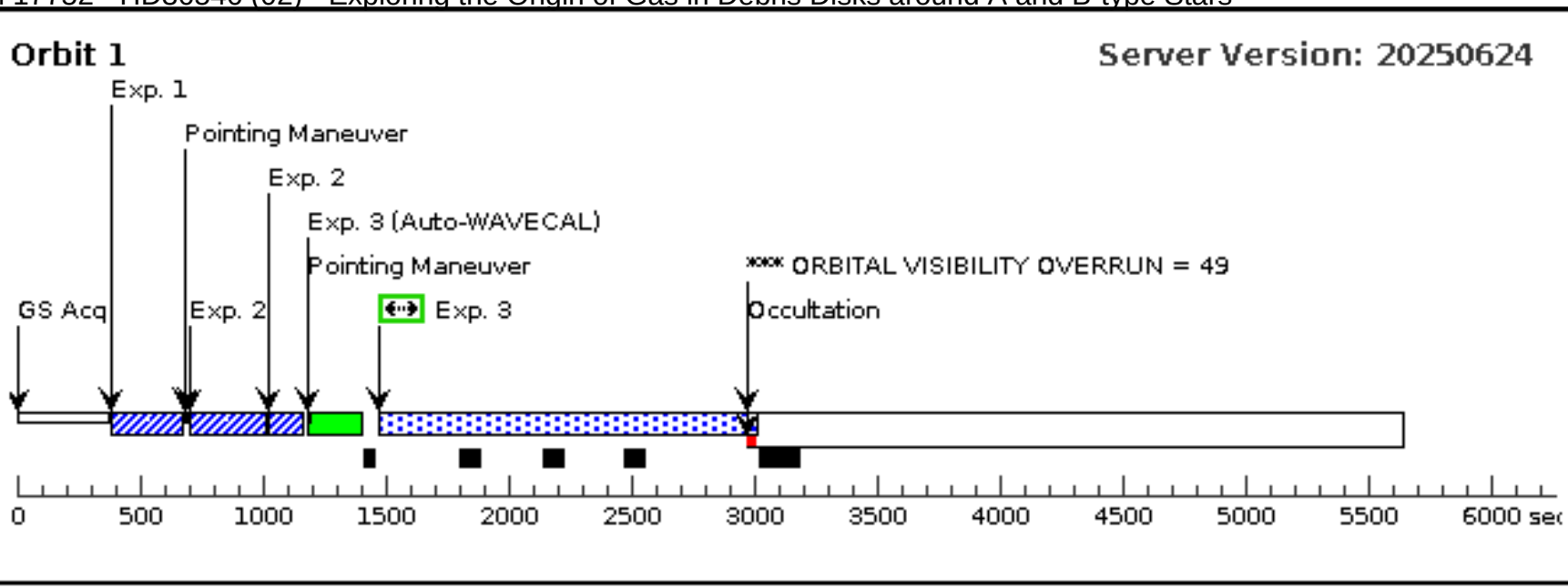
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	HD-36546	RA: 05 33 30.7587 (83.3781613d) Dec: +24 37 43.73 (24.62881d) Equinox: J2000	Proper Motion RA: 7.508 mas/yr Proper Motion Dec: -41.305 mas/yr Parallax: 0.0099821" Epoch of Position: 2000	V=6.95+/-.01 Model fits to Johnson B, V, Stromgren b, v, Tycho B, V, Gaia DR2 G, RP, BP, TESS, 2MASS, J, H, Ks, WISE W1, W2 yields: Teff = 9000(-300, +240)K, A_V = 0.01(-0.01, +0.1), predicted flux at 1562 A = 3.80e -12 erg / s / cm^2 / A	Reference Frame: ICRS

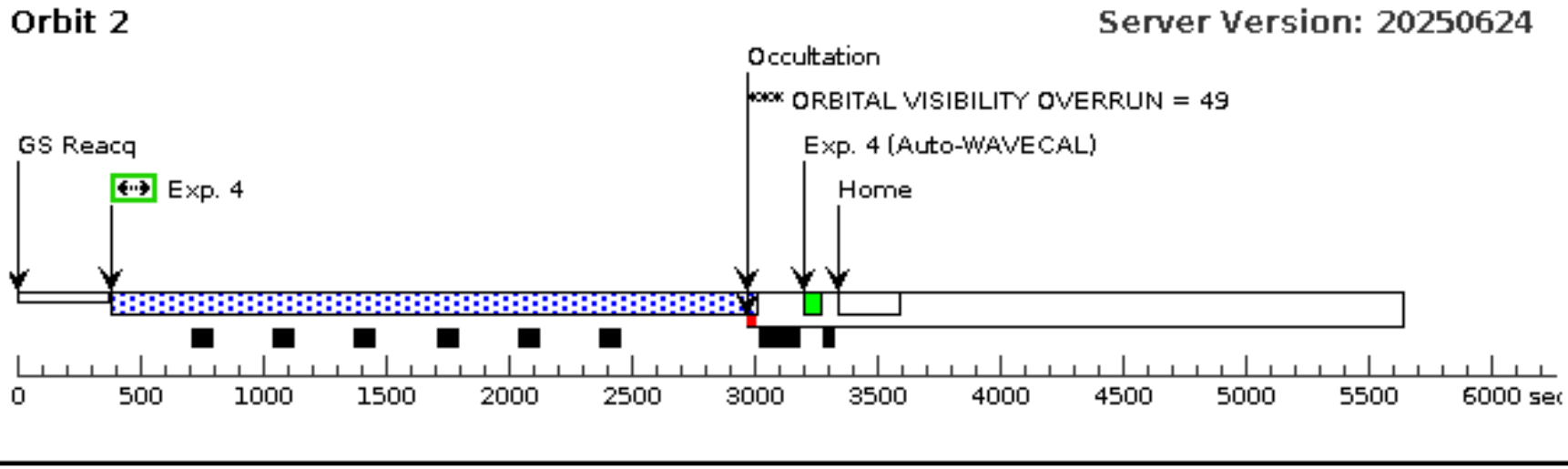
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A0-A3 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(2) HD-36546	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.1 Secs (0.1 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(2) HD-36546	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				0.7 Secs (0.7 Secs)	
								[==>]	***[1]***
3	TIME TAG (1929637)	(2) HD-36546	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=332			1513 Secs (1525 Secs)	
								[==>1525.0 Secs]	***[1]***
4	TIME TAG (1929637)	(2) HD-36546	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=332			2600 Secs (2618 Secs)	
								[==>2618.0 Secs]	***[2]***

Orbit Structure





Visit

Proposal 17752, HD38206 (03), failed

Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD38206 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD38206 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

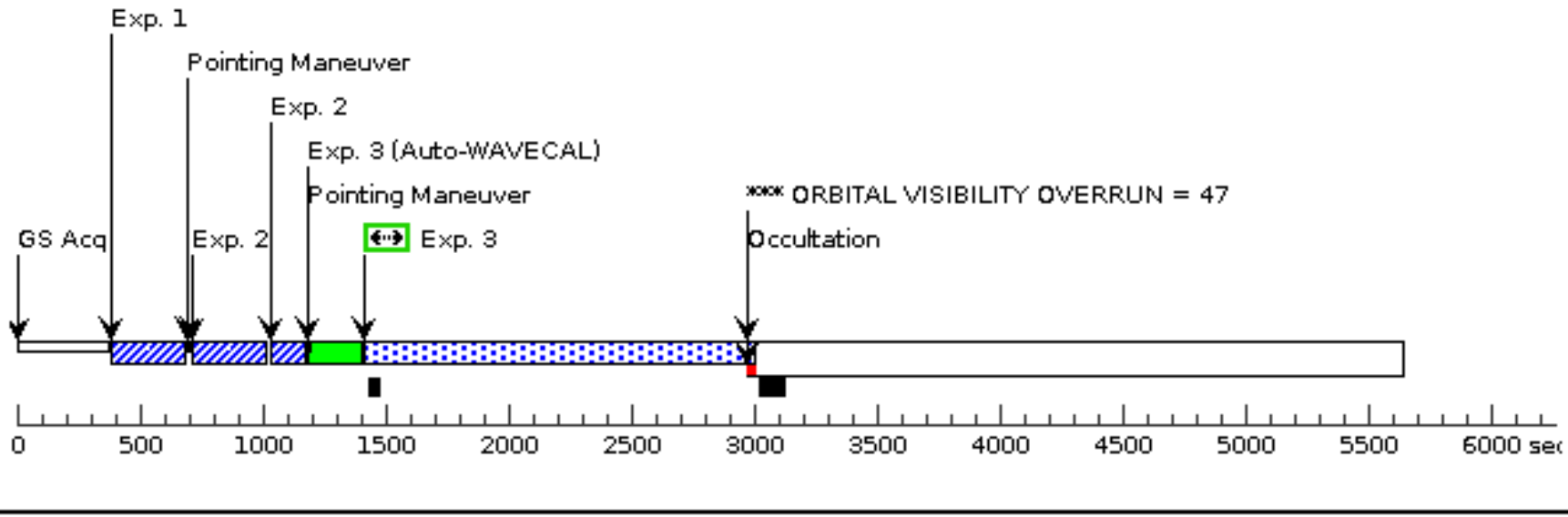
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	HD-38206	RA: 05 43 21.6709 (85.8402954d) Dec: -18 33 26.91 (-18.55748d) Equinox: J2000	Proper Motion RA: 19.372 mas/yr Proper Motion Dec: -13.424 mas/yr Parallax: 0.014147" Epoch of Position: 2000	V=5.727+/-.009 Johnson U = 5.59+-0.01 mag. Model fits to Johnson B, U, V, Stromgren b, v, y, Tycho B, V, Gaia DR2 G, RP, BP, TESS, 2MASS, J, H, Ks, WISE W1, W2 yields: Teff= 9500 (-200, +20)K, A_V = 0.01(-0.01, +0.04), predicted flux at 1562 A = 2.64e-11 erg / s / cm^2 / A	Reference Frame: ICRS

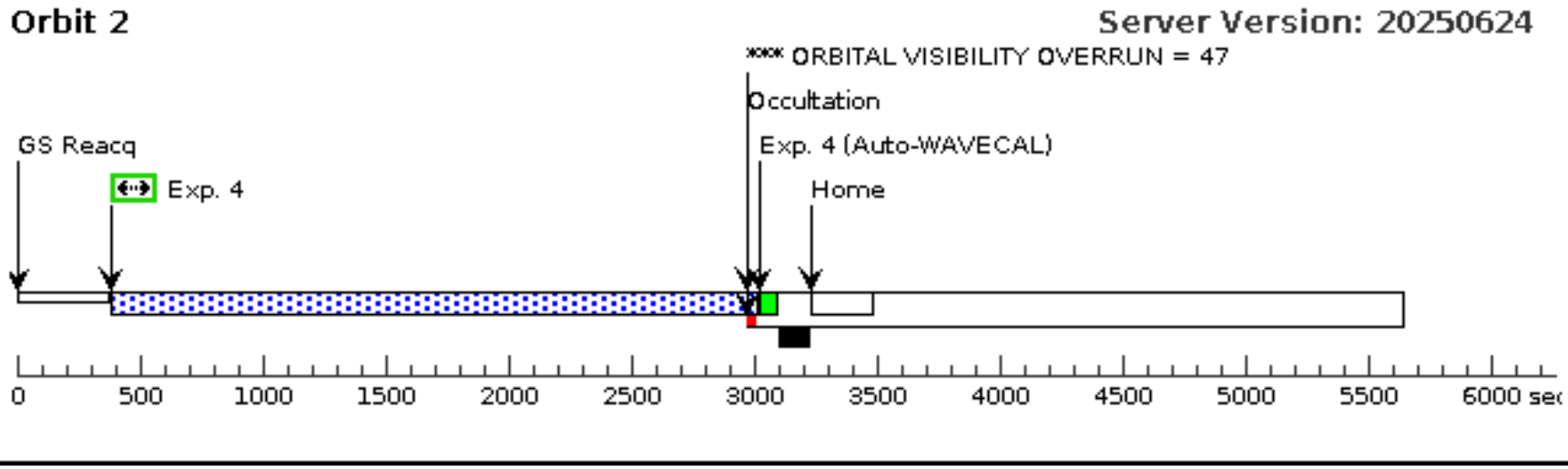
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A0-A3 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(3) HD-38206	STIS/CCD, ACQ, F25ND5	MIRROR	ACQTYPE=POINT			3 Secs (3 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(3) HD-38206	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				0.2 Secs (0.2 Secs)	
								[==>]	***[1]***
3	ACCUM (1929644)	(3) HD-38206	STIS/FUV-MAMA, ACCUM, 0.2X0.09	E140H 1562 A				739 Secs (1579 Secs)	
								[==>1579.0 Secs]	***[1]***
4	ACCUM (1929644)	(3) HD-38206	STIS/FUV-MAMA, ACCUM, 0.2X0.09	E140H 1562 A				2600 Secs (2613 Secs)	
								[==>2613.0 Secs]	***[2]***

Orbit Structure





Visit

Proposal 17752, HD38206 (53) Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD38206 (53)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD38206 (53)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

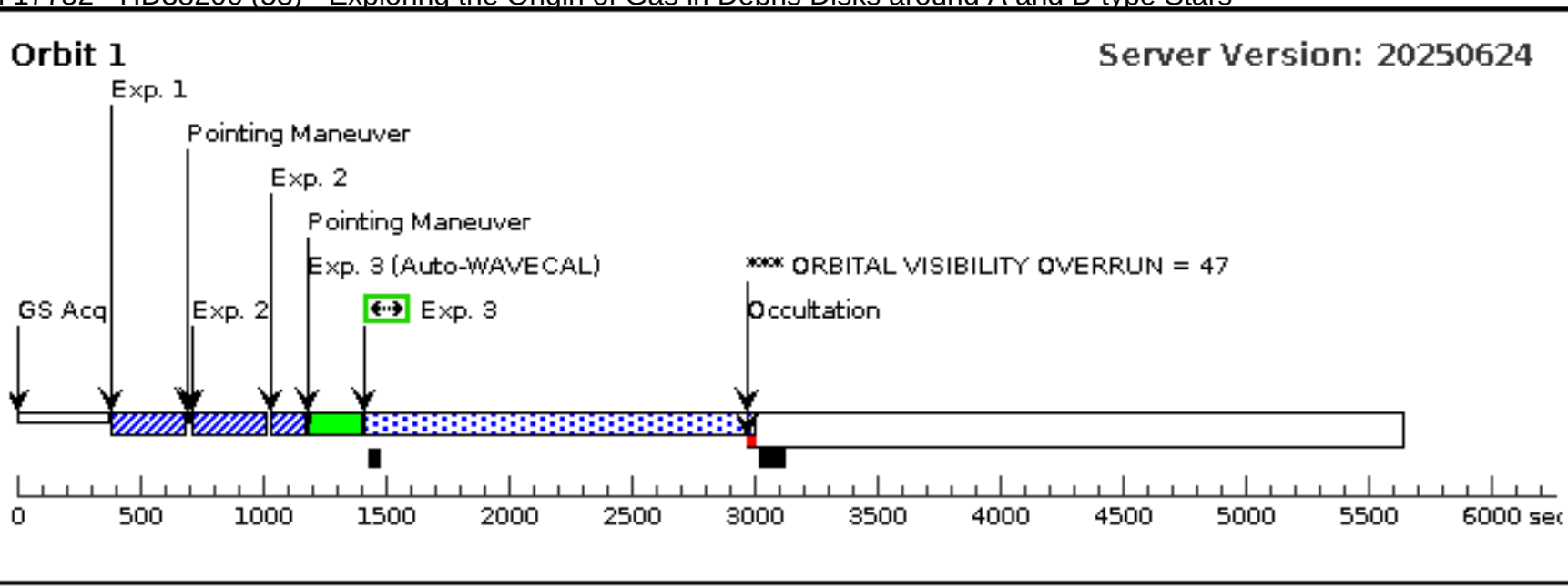
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	HD-38206	RA: 05 43 21.6709 (85.8402954d) Dec: -18 33 26.91 (-18.55748d) Equinox: J2000	Proper Motion RA: 19.372 mas/yr Proper Motion Dec: -13.424 mas/yr Parallax: 0.014147" Epoch of Position: 2000	V=5.727+/-.009 Johnson U = 5.59+-0.01 mag. Model fits to Johnson B, U, V, Stromgren b, v, y, Tycho B, V, Gaia DR2 G, RP, BP, TESS, 2MASS, J, H, Ks, WISE W1, W2 yields: Teff= 9500 (-200, +20)K, A_V = 0.01(-0.01, +0.04), predicted flux at 1562 A = 2.64e-11 erg / s / cm^2 / A	Reference Frame: ICRS

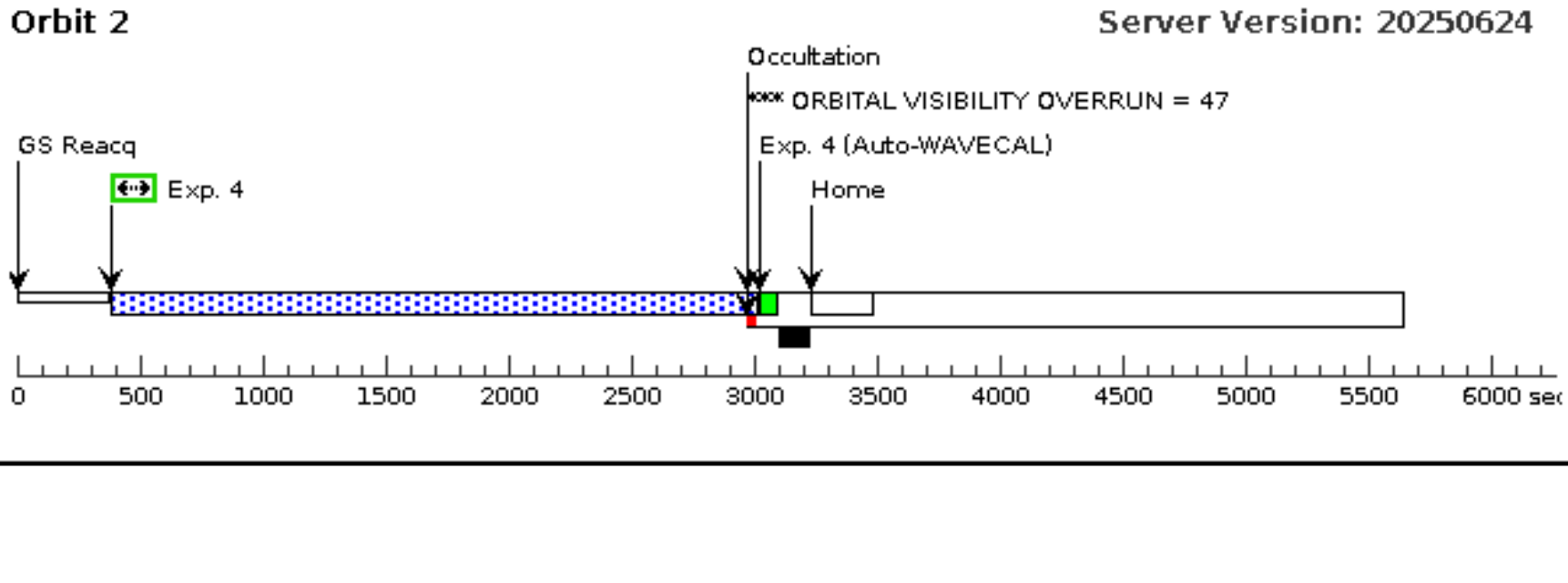
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A0-A3 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(3) HD-38206	STIS/CCD, ACQ, F25ND5	MIRROR	ACQTYPE=POINT			3 Secs (3 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(3) HD-38206	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				0.2 Secs (0.2 Secs)	
								[==>]	***[1]***
3	ACCUM (1929644)	(3) HD-38206	STIS/FUV-MAMA, ACCUM, 0.2X0.09	E140H 1562 A				739 Secs (1579 Secs)	
								[==>1579.0 Secs]	***[1]***
4	ACCUM (1929644)	(3) HD-38206	STIS/FUV-MAMA, ACCUM, 0.2X0.09	E140H 1562 A				2600 Secs (2613 Secs)	
								[==>2613.0 Secs]	***[2]***

Orbit Structure





Visit

Proposal 17752, HD158352 (04), completed Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD158352 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(HD158352 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(HD158352 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(HD158352 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
(HD158352 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

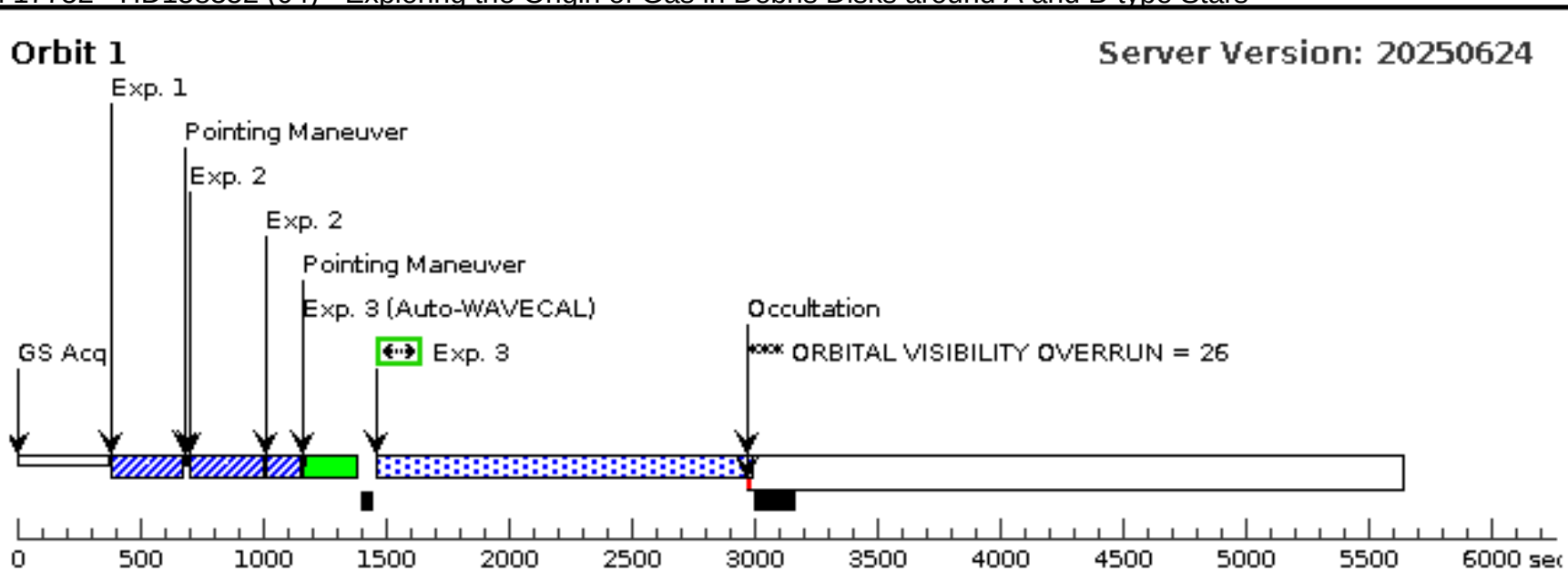
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	HD-158352	RA: 17 28 49.6548 (262.2068950d) Dec: +00 19 50.25 (.33063d) Equinox: J2000	Proper Motion RA: -64.651 mas/yr Proper Motion Dec: 19.221 mas/yr Parallax: 0.0156711" Epoch of Position: 2000	V=5.412+/-.009 Johnson U = 5.74+-0.08 mag. Model fits to Johnson U, B, V, Stromgren b, v, y, Tycho B, V, Gaia DR2 G, RP, TESS, 2MASS, H, Ks, WISE W1, W2 yields: Teff=7400K(-80, +150)K, A_V=0.01(-0.07, +0.01), predicted flux at 1562 A = 1.27e-13 erg / s / cm^2 / A	Reference Frame: ICRS

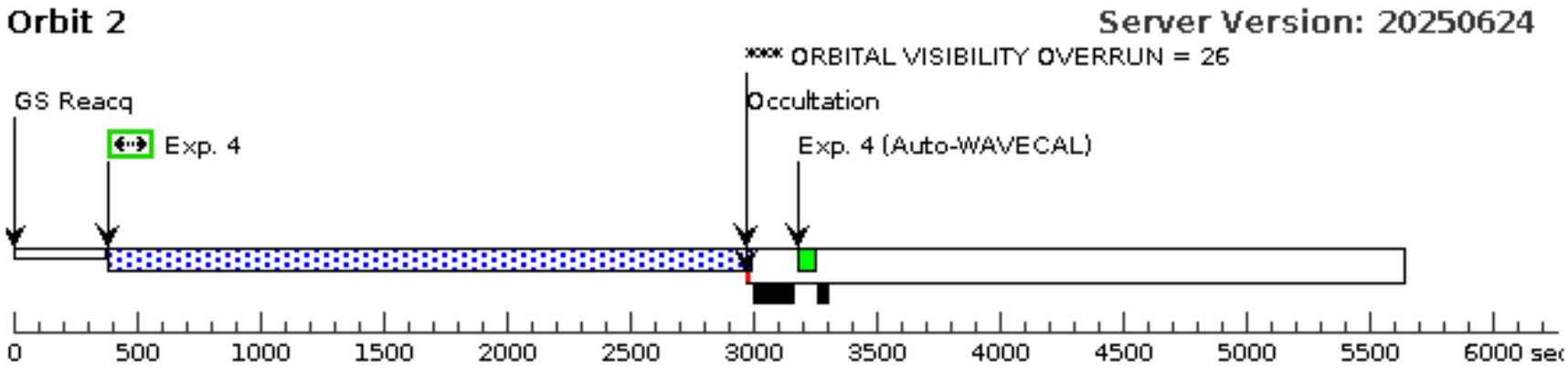
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A4-A9 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

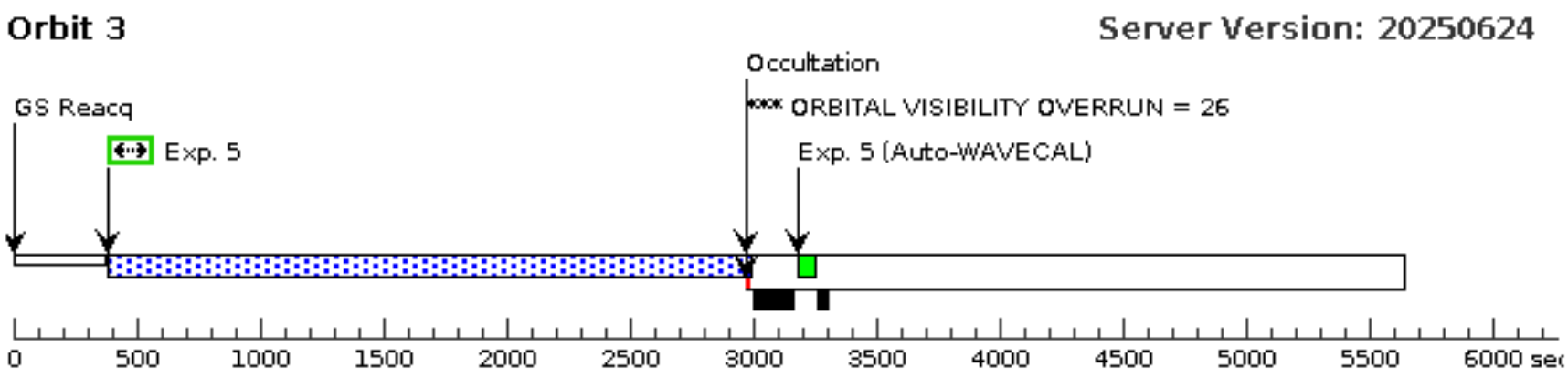
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(5) HD-158352	STIS/CCD, ACQ, F25ND5	MIRROR	ACQTYPE=POINT			0.7 Secs (0.7 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(5) HD-158352	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				0.1 Secs (0.1 Secs)	
								[==>]	***[1]***
3	TIME TAG (1929627)	(5) HD-158352	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=7936			1514 Secs (1514 Secs)	
								[==>]	***[1]***
4	TIME TAG (1929627)	(5) HD-158352	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=7936			2595 Secs (2595 Secs)	
								[==>]	***[2]***
5	TIME TAG (1929627)	(5) HD-158352	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=7936			2595 Secs (2595 Secs)	
								[==>]	***[3]***
6	TIME TAG (1929627)	(5) HD-158352	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=7936			2595 Secs (2595 Secs)	
								[==>]	***[4]***
7	TIME TAG (1929627)	(5) HD-158352	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=7936			2595 Secs (2595 Secs)	
								[==>]	***[5]***

Orbit Structure






Orbit 3
Server Version: 20250624
Occultation
GS Reacq
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Exp. 5
Exp. 5 (Auto-WAVECAL)
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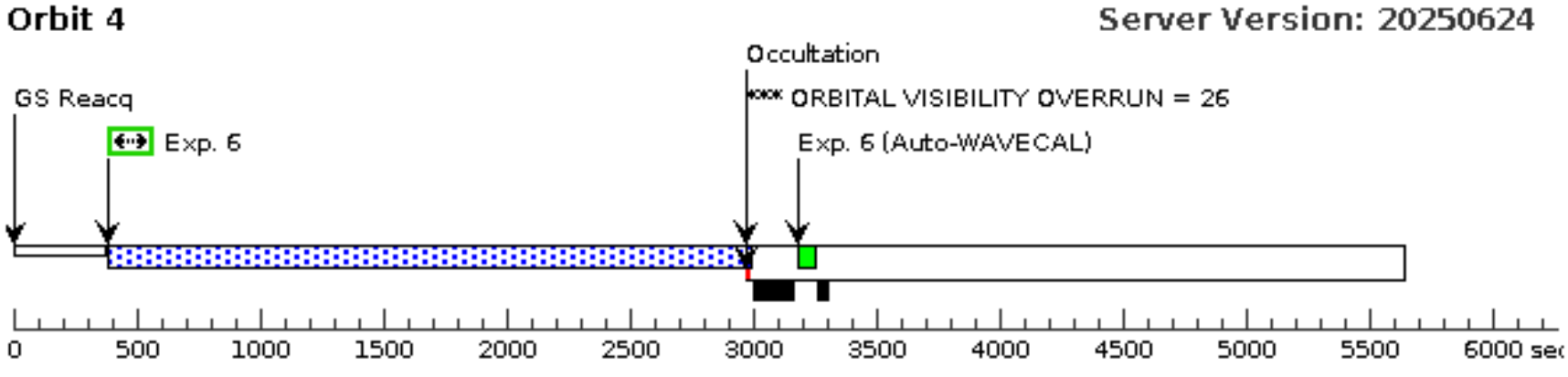
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 4
Server Version: 20250624
Occultation
GS Reacq
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Exp. 6 (Auto-WAVECAL)
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3500
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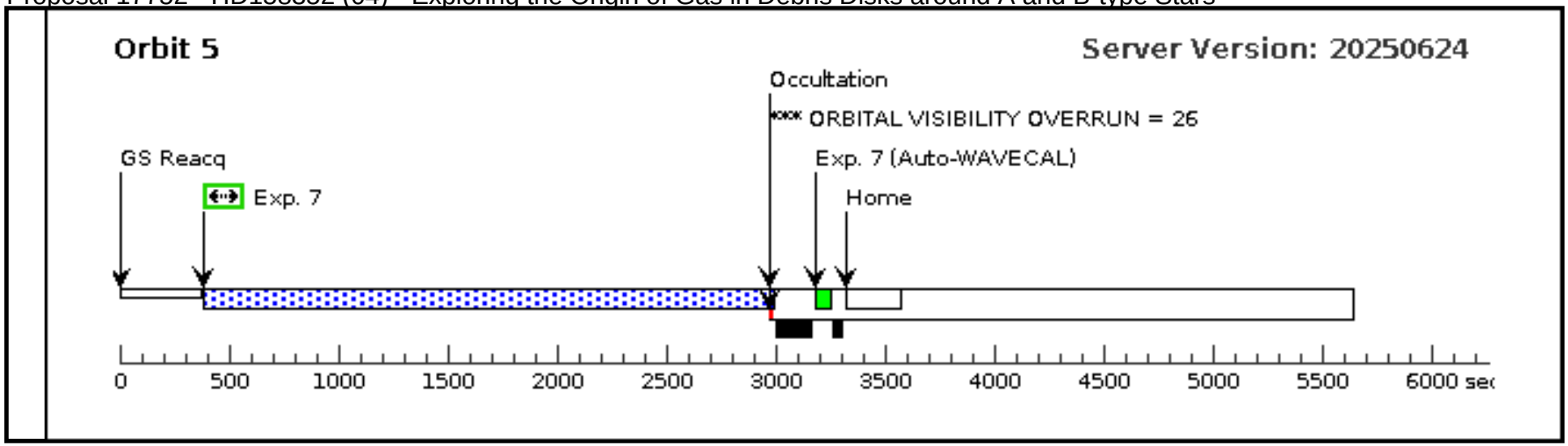
5500
6000 sec


Orbit 5
Server Version: 20250624
Occultation
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GS Reacq
Exp. 7
Exp. 7 (Auto-WAVECAL)
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0
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1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17752, HD143675 (05), scheduling Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD143675 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD143675 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

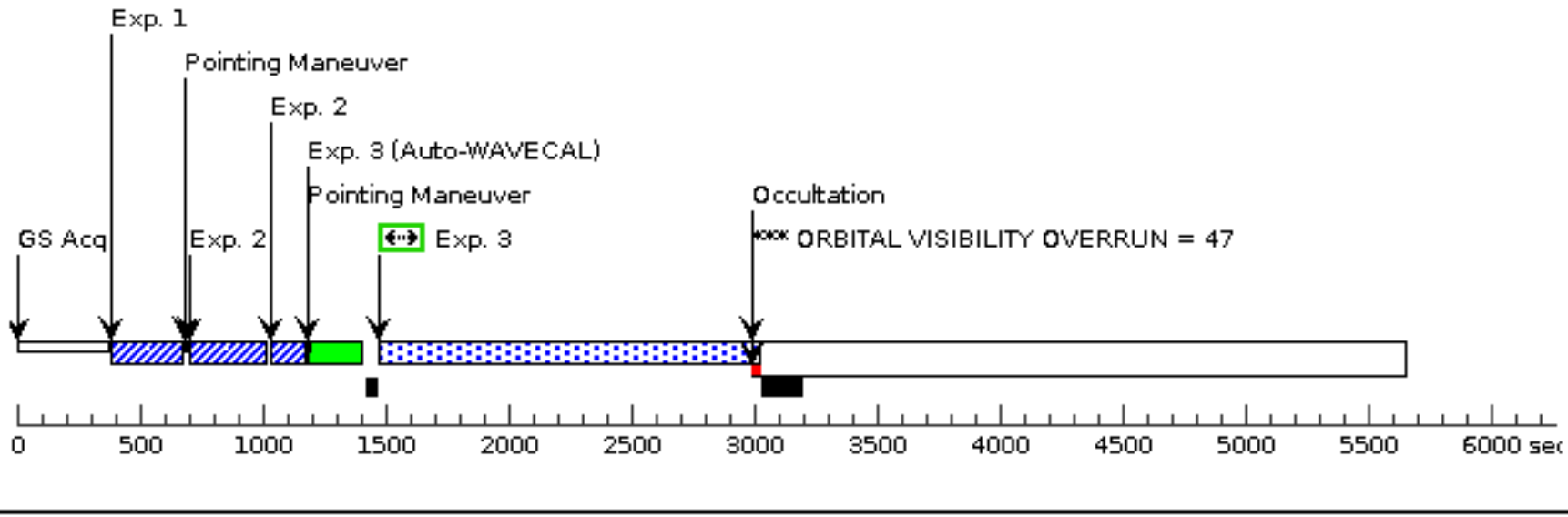
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	HD-143675	RA: 16 03 13.5398 (240.8064158d) Dec: -35 17 14.93 (-35.28748d) Equinox: J2000	Proper Motion RA: -19.696 mas/yr Proper Motion Dec: -26.280 mas/yr Parallax: 0.0073692" Epoch of Position: 2000	V=8.04+/-.01 Johnson B = 8.27+-0.01 mag. Model fits to Johnson B, V, Stromgren b, v, y, Tycho B, V, Gaia DR2 G, RP, BP, TESS, 2MASS, J, H, Ks, WISE W1, W2 yields: Teff=7850(-210, +140)K, A_V = 0.01 (+0.1, -0.01), predicted flux at 1562 A = 1.40e-13 erg / s / cm^2 / A	Reference Frame: ICRS

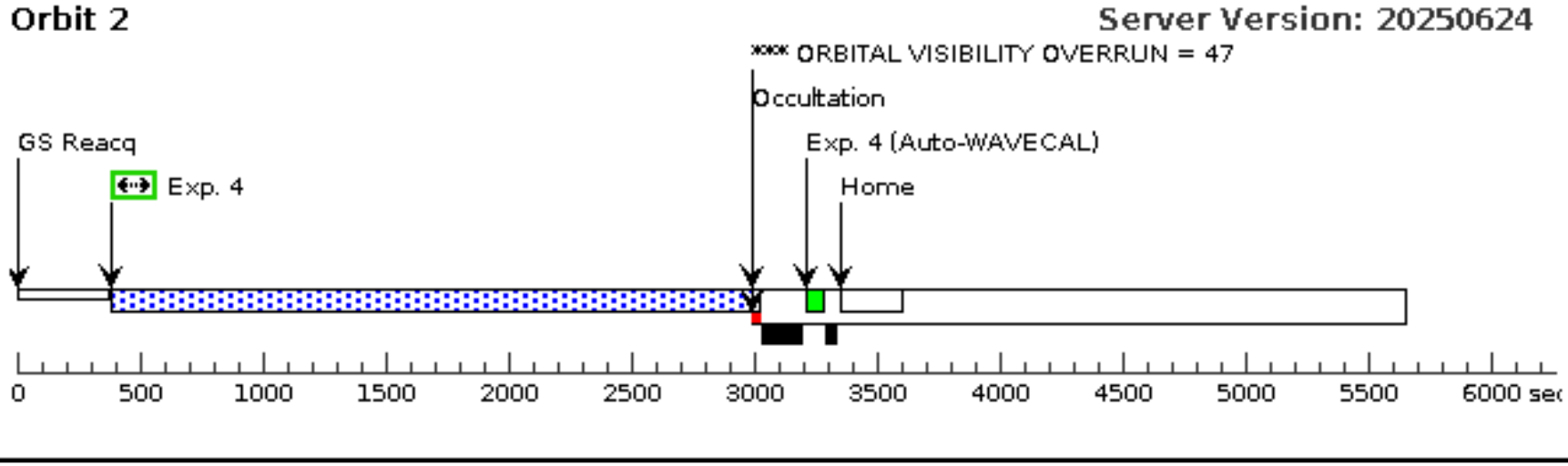
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A4-A9 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(6) HD-143675	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.1 Secs (0.1 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(6) HD-143675	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				0.9 Secs (0.9 Secs)	
								[==>]	***[1]***
3	TIME TAG (1929621)	(6) HD-143675	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=5821			1377 Secs (1530 Secs)	
								[==>1530.0 Secs]	***[1]***
4	TIME TAG (1929621)	(6) HD-143675	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=5821			2629 Secs (2629 Secs)	
								[==>]	***[2]***

Orbit Structure





Visit

Proposal 17752, HD32297 (06), completed Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD32297 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

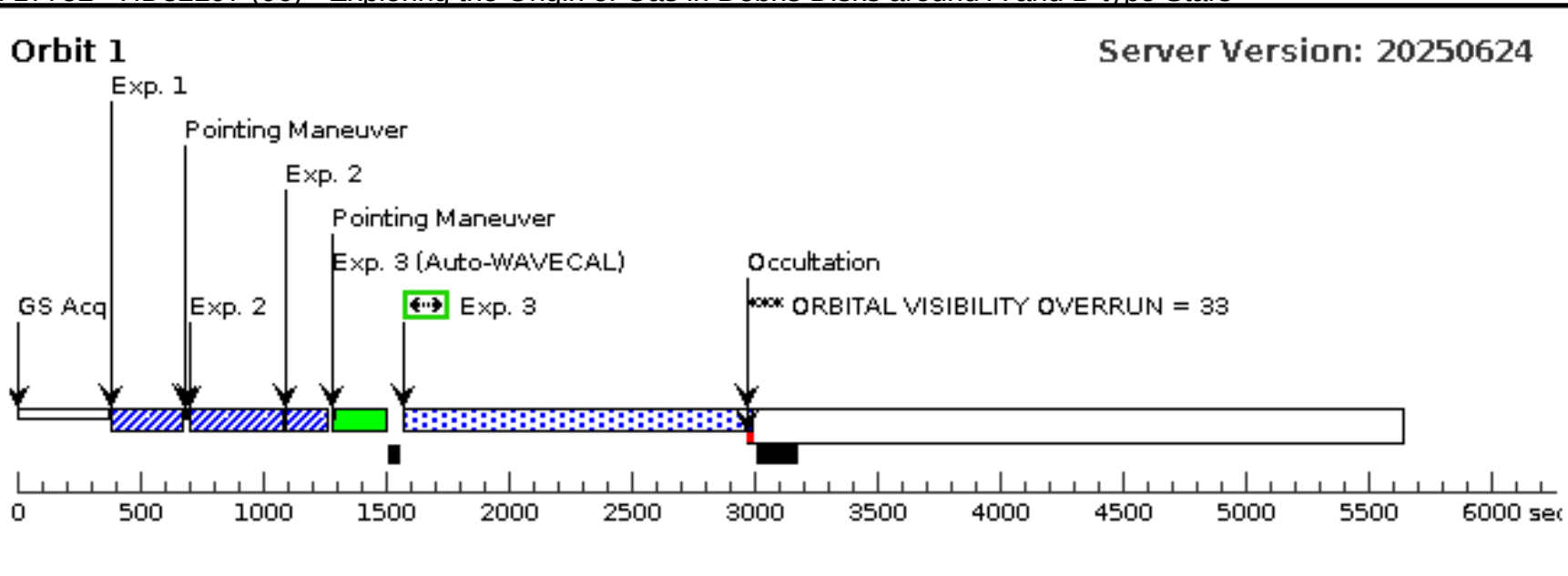
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HD-32297	RA: 05 02 27.4359 (75.6143163d) Dec: +07 27 39.68 (7.46102d) Equinox: J2000	Proper Motion RA: 5.671 mas/yr Proper Motion Dec: -23.526 mas/yr Parallax: 0.0077081" Epoch of Position: 2000	V=8.14+/-.01 Johnson B = 8.36+-0.02 mag. Model fits to Johnson B, V, Tycho B, V, Gaia DR2 G, RP, TESS, 2MASS, J, H, Ks, WISE W1, W2 yields: Teff=7700(-180, +270)K, A_V=0.014(0.014, +0.067), predicted flux at 1562 A = 2.74e-14 erg / s / cm^2 / A	Reference Frame: ICRS

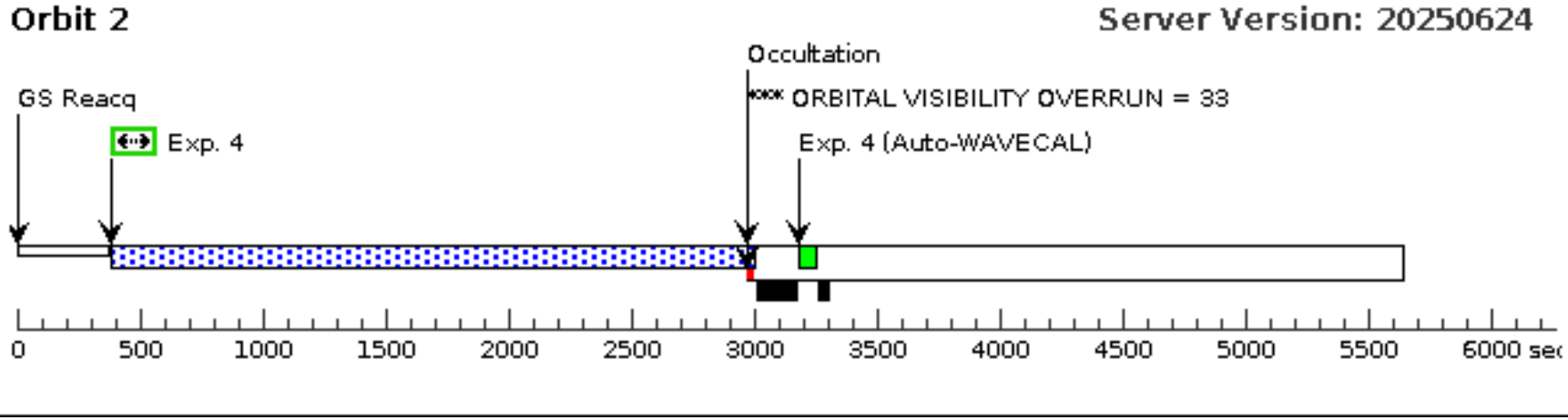
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A4-A9 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

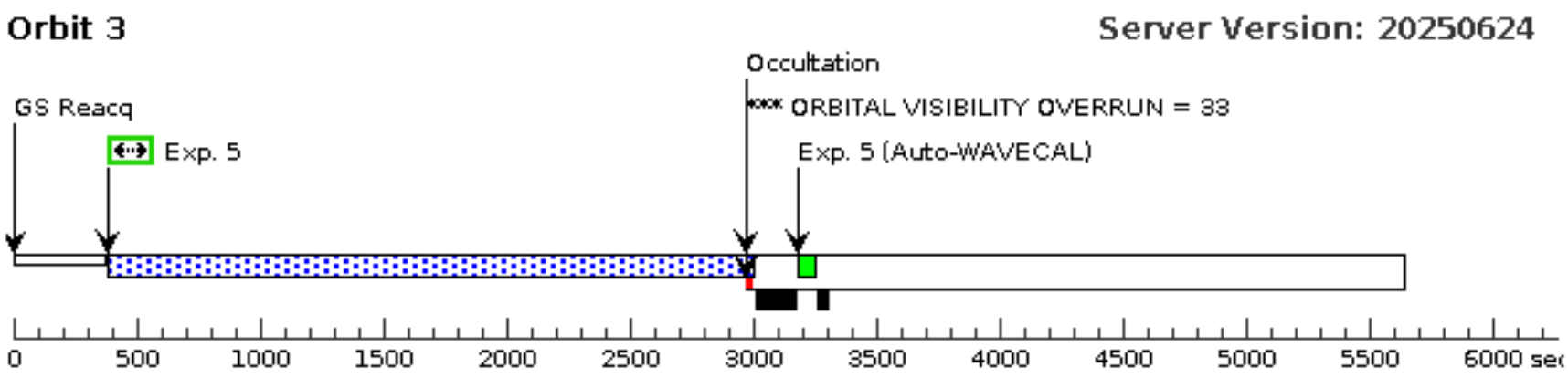
Exposures

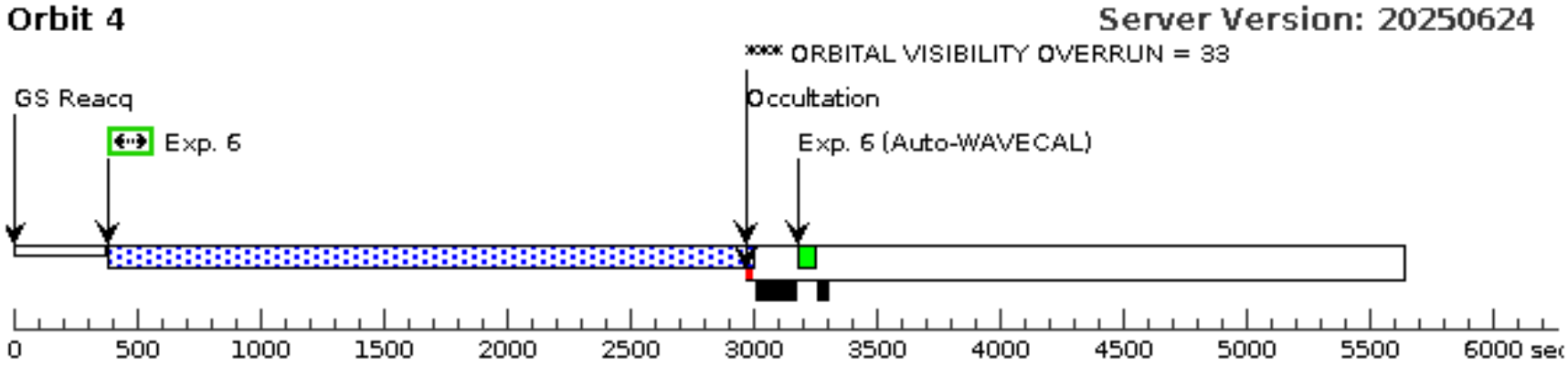
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(7) HD-32297	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(7) HD-32297	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				5 Secs (5 Secs)	
								[==>]	***[1]***
3	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=1360			1403 Secs (1403 Secs)	
								[==>]	***[1]***
4	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=1360			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[2]***
5	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=1360			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[3]***
6	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=1360			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[4]***
7	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=1360			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[5]***

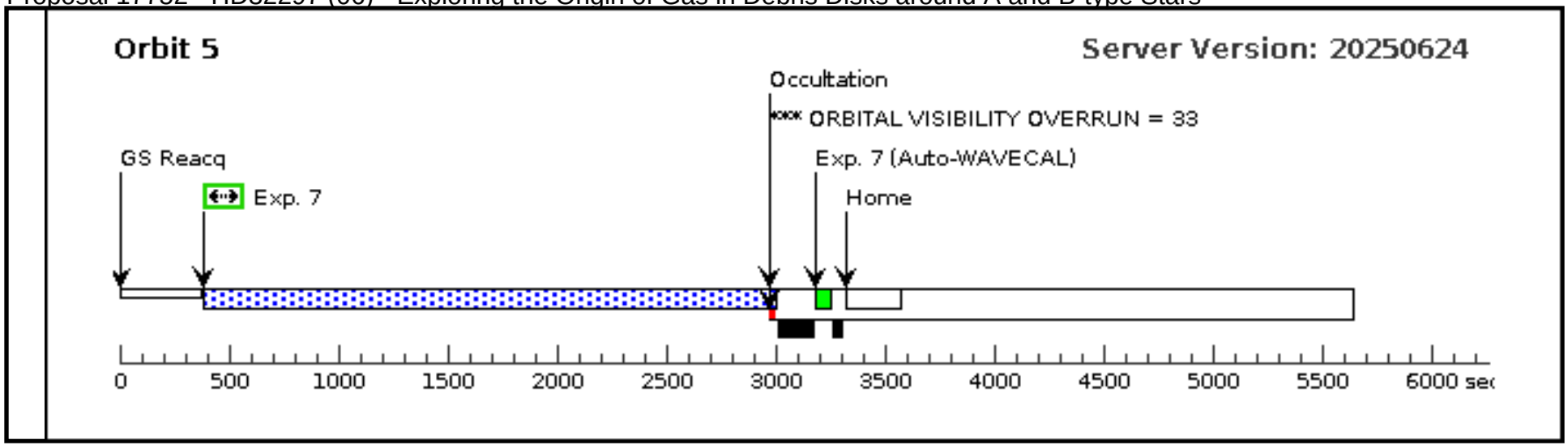
Orbit Structure






Orbit 3
Server Version: 20250624
Occultation
*** ORBITAL VISIBILITY OVERRUN = 33
GS Reacq
Exp. 5
Exp. 5 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 4
Server Version: 20250624
*** ORBITAL VISIBILITY OVERRUN = 33
Occultation
GS Reacq
Exp. 6
Exp. 6 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 5
Server Version: 20250624
Occultation
*** ORBITAL VISIBILITY OVERRUN = 33
GS Reacq
Exp. 7
Exp. 7 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17752, HD32297 (07), completed Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD32297 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD32297 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

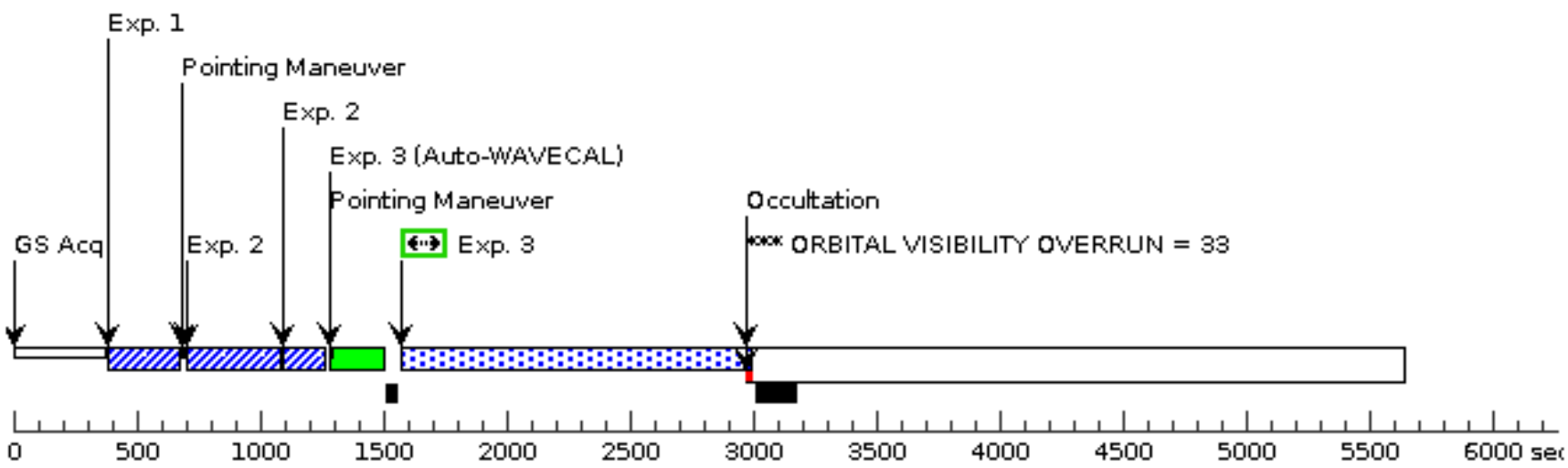
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HD-32297	RA: 05 02 27.4359 (75.6143163d) Dec: +07 27 39.68 (7.46102d) Equinox: J2000	Proper Motion RA: 5.671 mas/yr Proper Motion Dec: -23.526 mas/yr Parallax: 0.0077081" Epoch of Position: 2000	V=8.14+/-.01 Johnson B = 8.36+-0.02 mag. Model fits to Johnson B, V, Tycho B, V, Gaia DR2 G, RP, TESS, 2MASS, J, H, Ks, WISE W1, W2 yields: Teff=7700(-180, +270)K, A_V=0.014(0.014, +0.067), predicted flux at 1562 A = 2.74e-14 erg / s / cm^2 / A	Reference Frame: ICRS

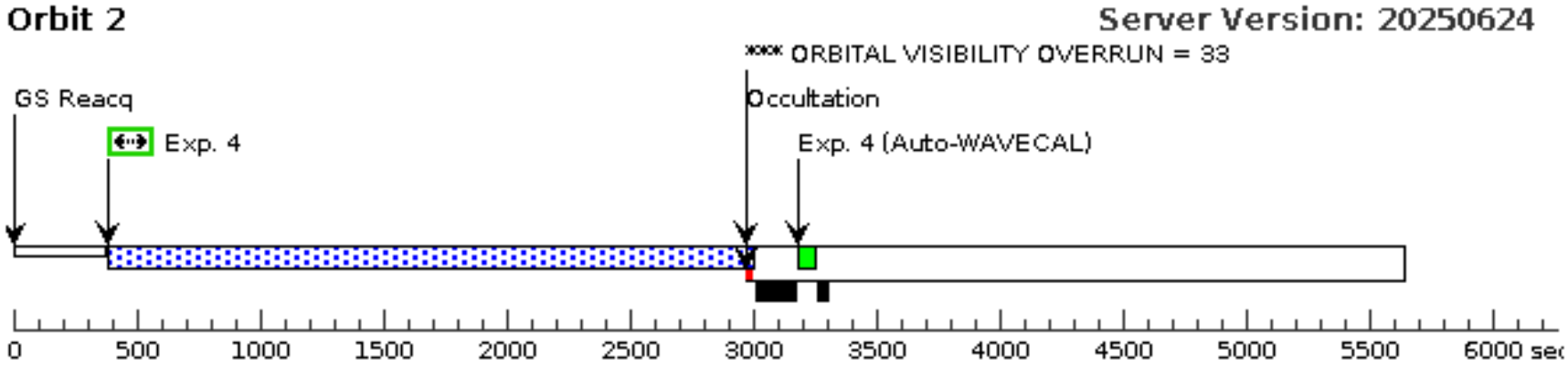
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A4-A9 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

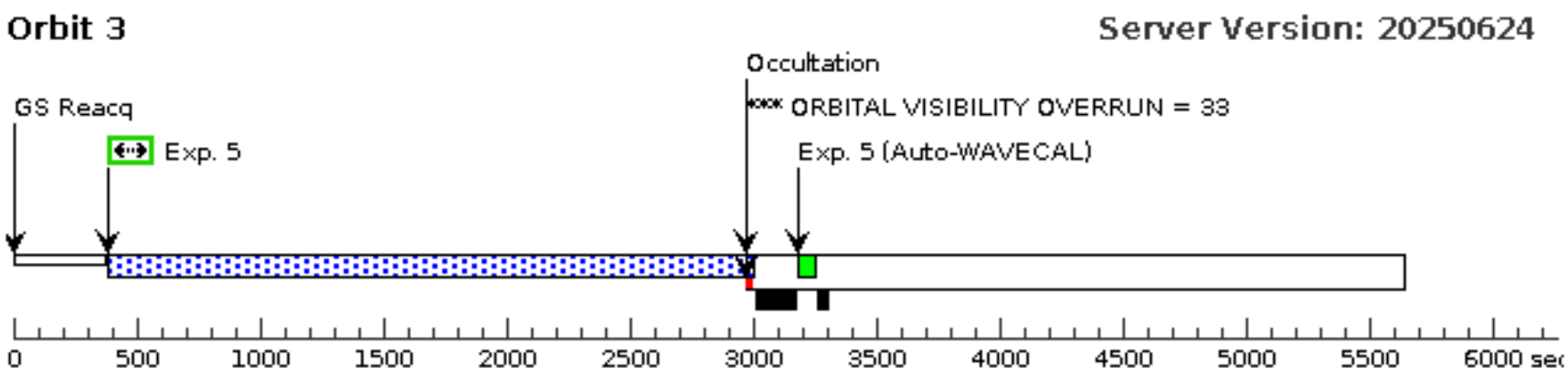
Exposures

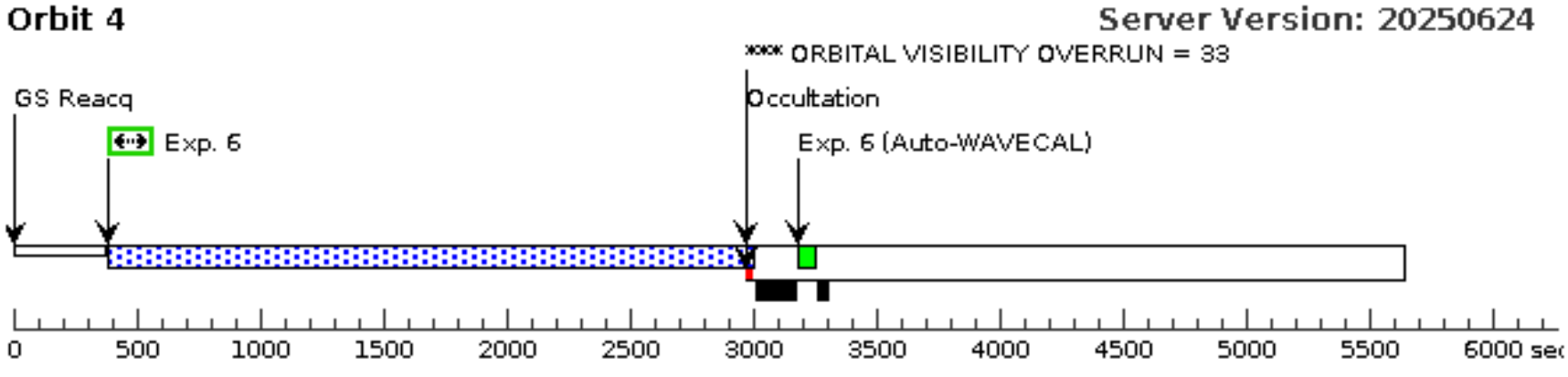
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(7) HD-32297	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(7) HD-32297	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				5 Secs (5 Secs)	
								[==>]	***[1]***
3	TIME TAG (STIS.sp.1929535)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=13600			1403 Secs (1403 Secs)	
								[==>]	***[1]***
4	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=13600			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[2]***
5	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=13600			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[3]***
6	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=13600			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[4]***
7	TIME TAG (1929632)	(7) HD-32297	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=13600			2000 Secs (2600 Secs)	
								[==>2600.0 Secs]	***[5]***

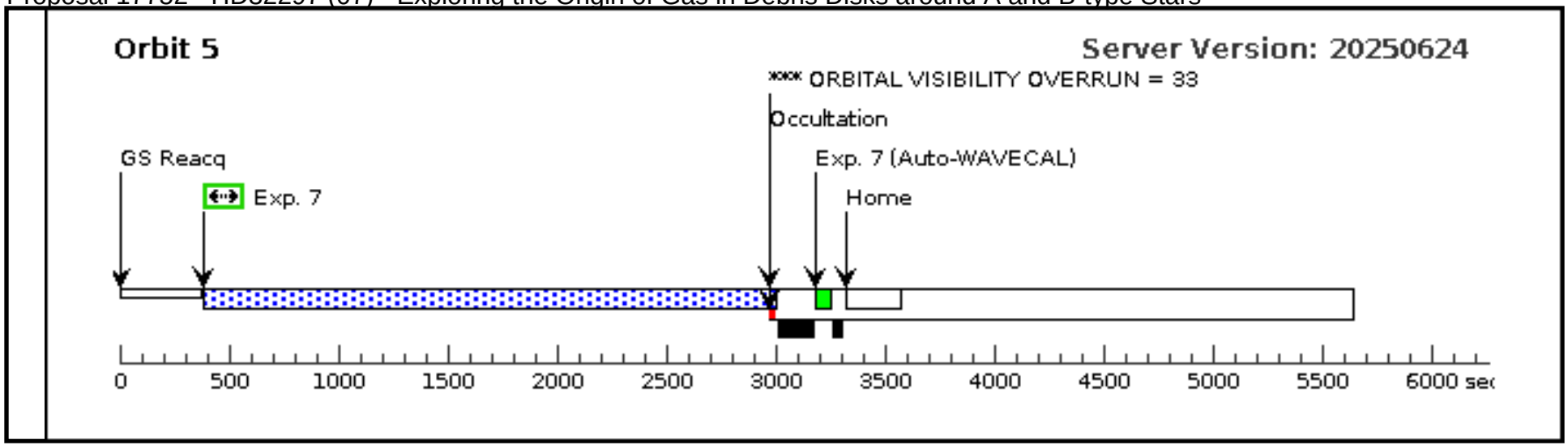
Orbit Structure






Orbit 3
Server Version: 20250624
Occultation
GS Reacq
*** ORBITAL VISIBILITY OVERRUN = 33
Exp. 5
Exp. 5 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 4
Server Version: 20250624
*** ORBITAL VISIBILITY OVERRUN = 33
GS Reacq
Occultation
Exp. 6
Exp. 6 (Auto-WAVECAL)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec


Orbit 5
Server Version: 20250624
**** ORBITAL VISIBILITY OVERRUN = 33
Occultation
GS Reacq
Exp. 7
Exp. 7 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

Visit

Proposal 17752, HD98363 (08), scheduling Thu Oct 09 14:00:27 GMT 2025

Diagnostic Status: Warning

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

Special Requirements: (none)

Diagnostics

(HD98363 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD98363 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(HD98363 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

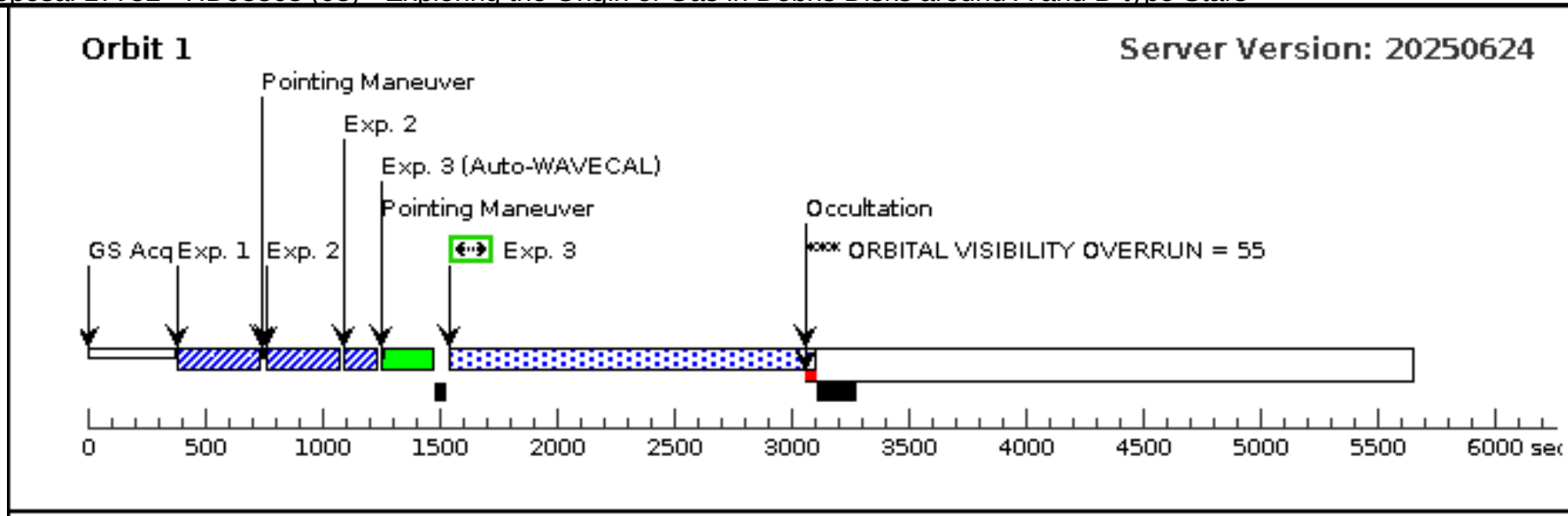
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	HD-98363	RA: 11 17 58.1370 (169.4922375d) Dec: -64 02 33.35 (-64.04260d) Equinox: J2000	Proper Motion RA: -28.593 mas/yr Proper Motion Dec: -0.627 mas/yr Parallax: 0.007288" Epoch of Position: 2000	V=7.85+/-.01 Johnson B = 8.07+-0.015 mag. Model fits to Johnson B, V, Tycho B, V, Gaia DR2 G, RP, BP, TESS, 2MASS, J, H, Ks, WISE W1, W2 yields: Teff = 8000(-100, +70)K, A_V = 0.007(-0.007, +0.05), predicted flux at 1562 A = 1.4e-13 erg / s / cm^2 / A	Reference Frame: ICRS

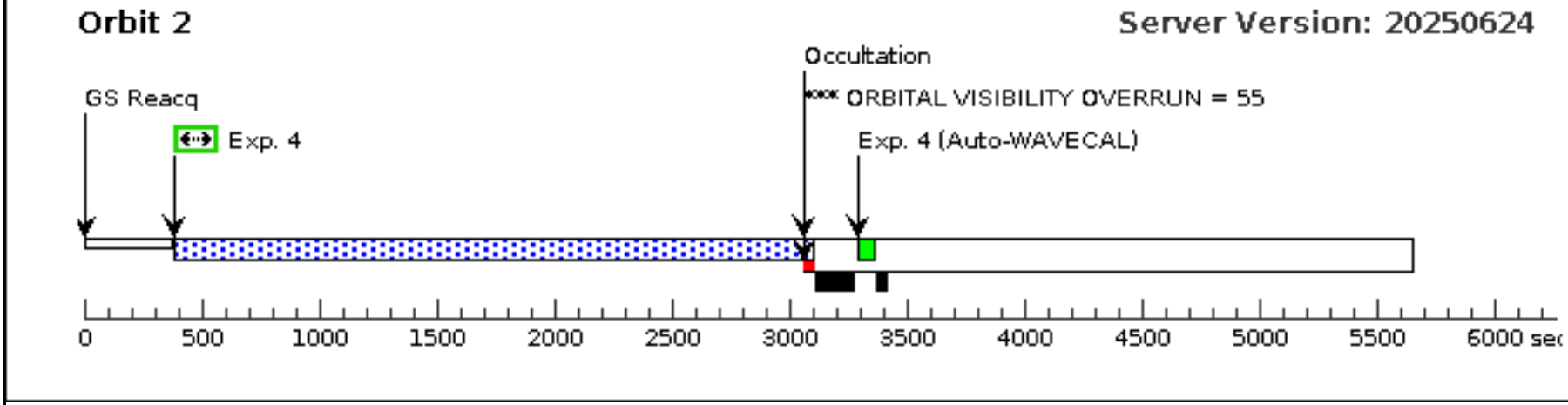
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. For ETC calculations we used the predicted flux from the best fit model at 1562 A.
Category=STAR
Description=[A4-A9 V-IV, CIRCUMSTELLAR MATTER, DISK]
Extended=NO

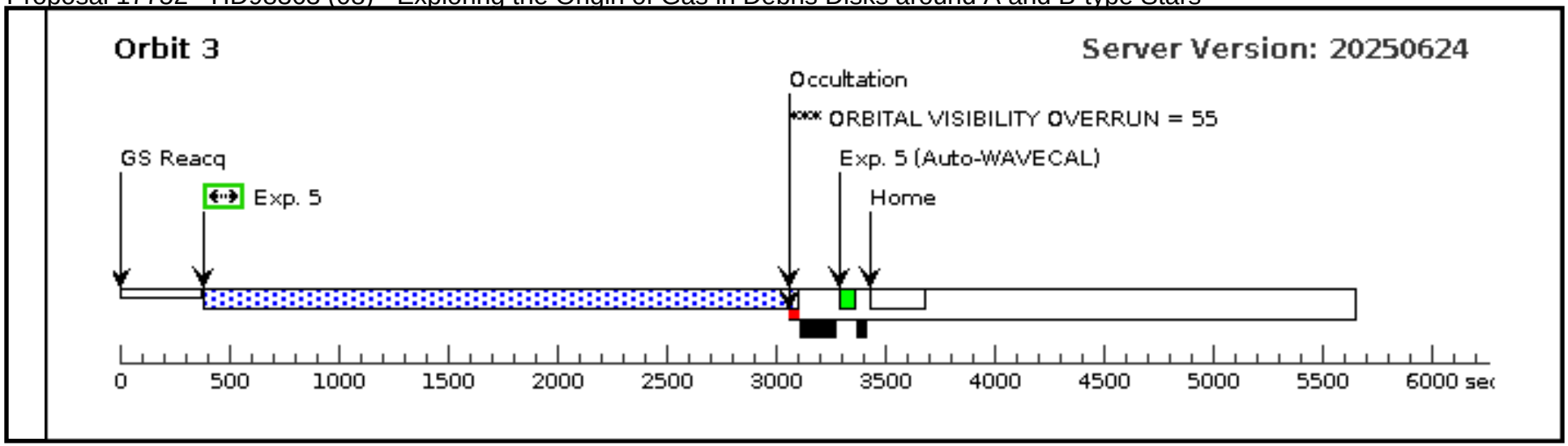
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ	(4) HD-98363	STIS/CCD, ACQ, F25ND5	MIRROR	ACQTYPE=POINT			16 Secs (16 Secs)	
								[==>]	***[1]***
2	ACQ PEAK	(4) HD-98363	STIS/CCD, ACQ/PEAK, 0.3X0.05ND	MIRROR				0.9 Secs (0.9 Secs)	
								[==>]	***[1]***
3	TIME TAG (1929651)	(4) HD-98363	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=5821			1173 Secs (1547 Secs)	
								[==>1547.0 Secs]	***[1]***
4	TIME TAG (1929651)	(4) HD-98363	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=5821			1173 Secs (2709 Secs)	
								[==>2709.0 Secs]	***[2]***
5	TIME TAG (1929651)	(4) HD-98363	STIS/FUV-MAMA, TIME-TAG, 0.2X0.09	E140H 1562 A	BUFFER-TIME=5821			1173 Secs (2709 Secs)	
								[==>2709.0 Secs]	***[3]***

Orbit Structure






Orbit 3
Server Version: 20250624
Occultation
**** ORBITAL VISIBILITY OVERRUN = 55
GS Reacq
Exp. 5
Exp. 5 (Auto-WAVECAL)
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec