



18334 - Constraining the i-process with heavy-metal subdwarfs

Cycle: 34, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) HZ-44	STIS/CCD STIS/FUV-MAMA	1	28-Aug-2026 00:01:19.0	yes
02	(2) HE-2359-2844	COS/FUV COS/NUV	2	28-Aug-2026 00:01:20.0	yes
03	(3) HE-1256-2738	COS/FUV COS/NUV	2	28-Aug-2026 00:01:21.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
04	(4) FEIGE-46	STIS/CCD STIS/FUV-MAMA	3	28-Aug-2026 00:01:21.0	yes
05	(5) PHL-417	COS/FUV COS/NUV	2	28-Aug-2026 00:01:22.0	yes
06	(6) PG-1559+048	STIS/CCD STIS/FUV-MAMA	3	28-Aug-2026 00:01:23.0	yes
07	(7) FBS-1749+373	STIS/CCD STIS/FUV-MAMA	3	28-Aug-2026 00:01:24.0	yes
08	(8) CW83-0825+15	STIS/CCD STIS/FUV-MAMA	1	28-Aug-2026 00:01:25.0	yes
09	(9) GALEX-J001235.6-422011	COS/FUV COS/NUV	2	28-Aug-2026 00:01:26.0	yes
10	(10) FAUST-4434	STIS/CCD STIS/FUV-MAMA	3	28-Aug-2026 00:01:27.0	yes
11	(11) PB-6355	STIS/CCD STIS/FUV-MAMA	3	28-Aug-2026 00:01:27.0	yes
12	(12) GALEX-J202216.8+015225	STIS/CCD STIS/FUV-MAMA	3	28-Aug-2026 00:01:28.0	yes
13	(13) PG-1459-048	STIS/CCD STIS/FUV-MAMA	3	28-Aug-2026 00:01:29.0	yes

31 Total Orbits Used

ABSTRACT

The origin of heavy elements remains a fundamental problem in astrophysics, with growing evidence for an intermediate neutron-capture (i-)process beyond the classical s- and r-process framework. However, its astrophysical sites and yields remain poorly constrained due to degeneracies in evolved stars, where mixing, binary mass transfer, and ongoing nucleosynthesis obscure clear interpretation.

Heavy-metal hot subdwarfs provide a uniquely clean environment to isolate the i-process. These core helium-burning stars bypass the asymptotic

giant branch, excluding s-process enrichment on evolutionary grounds, and possess stable, radiative atmospheres free of deep convection. A subset of hot subdwarfs stars exhibits extreme overabundances of trans-iron elements, consistent with i-process nucleosynthesis triggered by proton ingestion during the helium core flash. Crucially, HST ultraviolet spectroscopy of the benchmark system EC22536-5304 enabled the first complete abundance pattern across the trans-iron regime, which is successfully reproduced by i-process models.

We propose HST ultraviolet spectroscopy of 13 heavy-metal subdwarfs to obtain the first representative sample of complete trans-iron abundance patterns. The ultraviolet domain contains diagnostic lines of ~ 25 heavy elements inaccessible from the ground, enabling robust, quantitative comparisons with nucleosynthesis models. Our goals are (1) to definitively establish the i-process origin of the observed heavy-element enhancements through population-level abundance patterns, and (2) to constrain i-process yields as a function of metallicity and formation channel through direct comparison with state-of-the-art models.

OBSERVING DESCRIPTION

Nine bright hot subdwarf stars (sdO/sdB) are observed with STIS/E140M ($m_{\text{FUV}} < 13.2\text{mag}$). Two of these stars can achieve $\text{SNR} > 25$ in a single orbit, seven require two orbits.

The four fainter ($14.6 < m_{\text{FUV}} < 15.4\text{mag}$) stars are observed with COS/G130M-1291 and COS/G160M-1600 at one orbit per grating per target (two orbits each). Because the position of these stars is well known from Gaia DR3 and the COS aperture is large, we do not require a specific target acquisition for stars observed with COS.

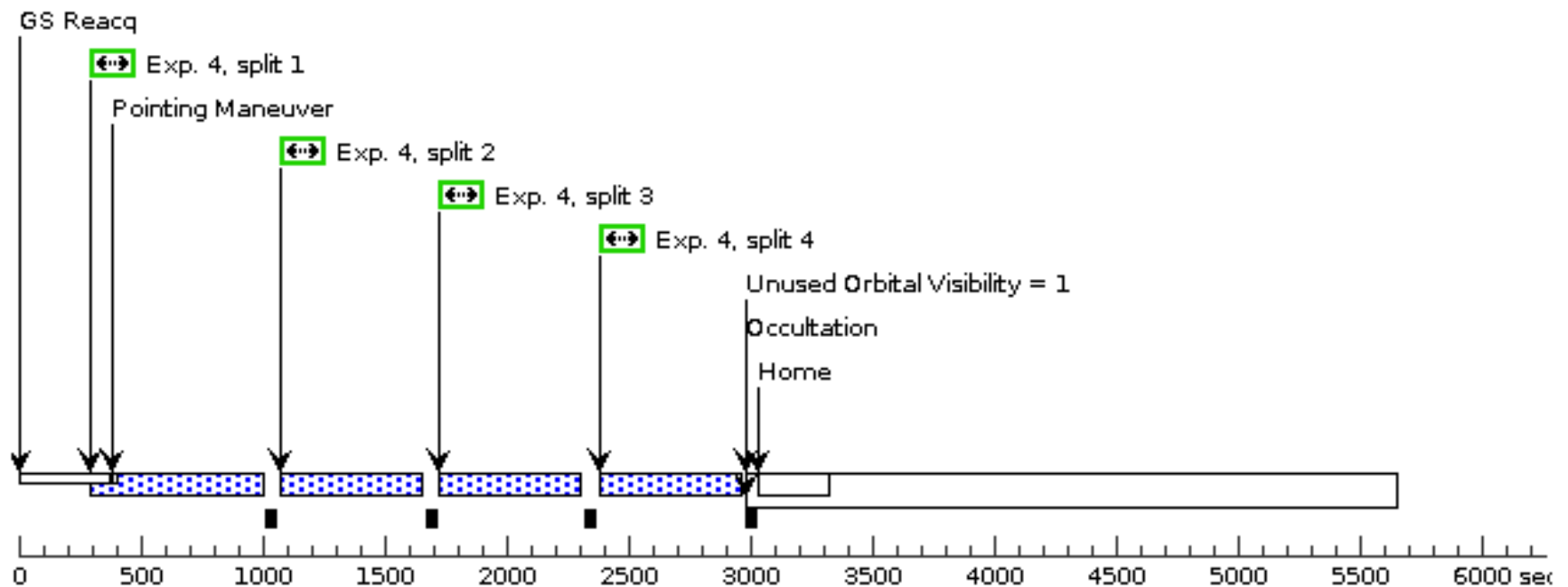
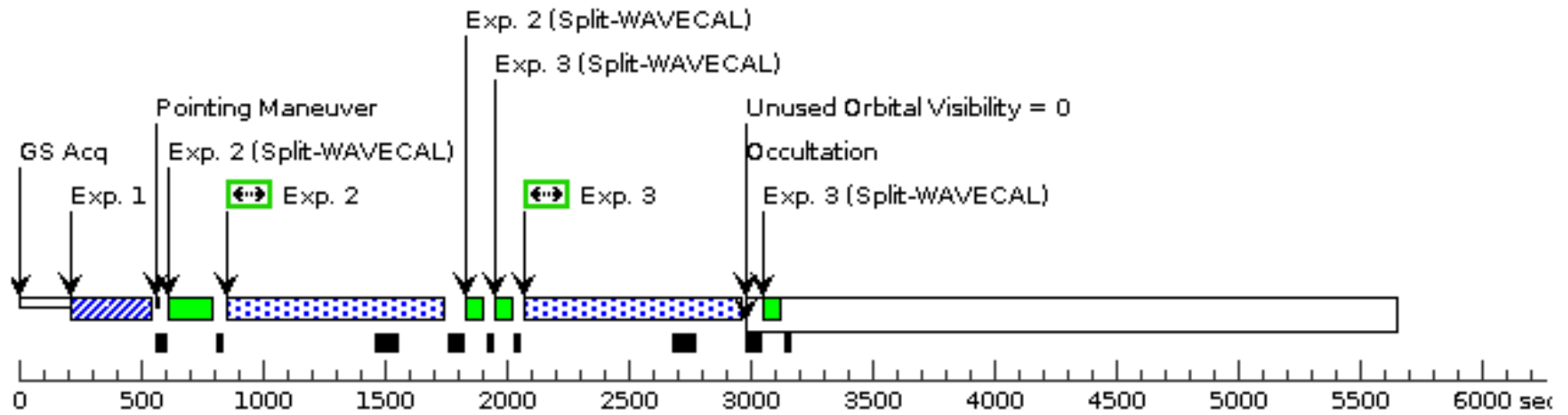
Three stars are binaries (sdOB + F5V main sequence star: PB-6355, PG1459-048, GALEX_J202216.8+015225). In each system, the sdOB completely dominates in the UV and the F-type takes over at wavelengths > 5000 Angstrom. Models used for the ETC consider both stars. The binaries are not resolved by HST.

Proposal 18334 - Visit 01 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 01, implementation										Fri Aug 28 04:01:29 GMT 2026		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA												
	Special Requirements: (none)												
Fixed Targets	#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(1)	HZ-44		RA: 13 23 35.2629 (200.8969288d) Dec: +36 07 59.54 (36.13321d) Equinox: J2000		Proper Motion RA: -66.004 mas/yr Proper Motion Dec: -4.407999904287863 mas/yr Parallax: 0.0026703" Epoch of Position: 2000		V=11.65		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=[SDB] Extended=NO												
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1	(STIS.ta.236 6122)	(1) HZ-44	STIS/CCD, ACQ, F28X50LP		MIRROR				0.5 Secs (0.5 Secs)			
										[>=>]		[1]	
	2	(STIS.sp.23 66118)	(1) HZ-44	STIS/FUV-MAMA, ACCUM, 0.2X0.2		E140M 1425 A				1800 Secs (2185 Secs)			
										[>=>2185.0 Secs]		[1]	
Orbit Structure	Orbit 1 Server Version: 20260618 GS Acq Exp. 1 Exp. 2 (Auto-WAVECAL) Exp. 2 Unused Orbital Visibility = 2 Occultation Home												

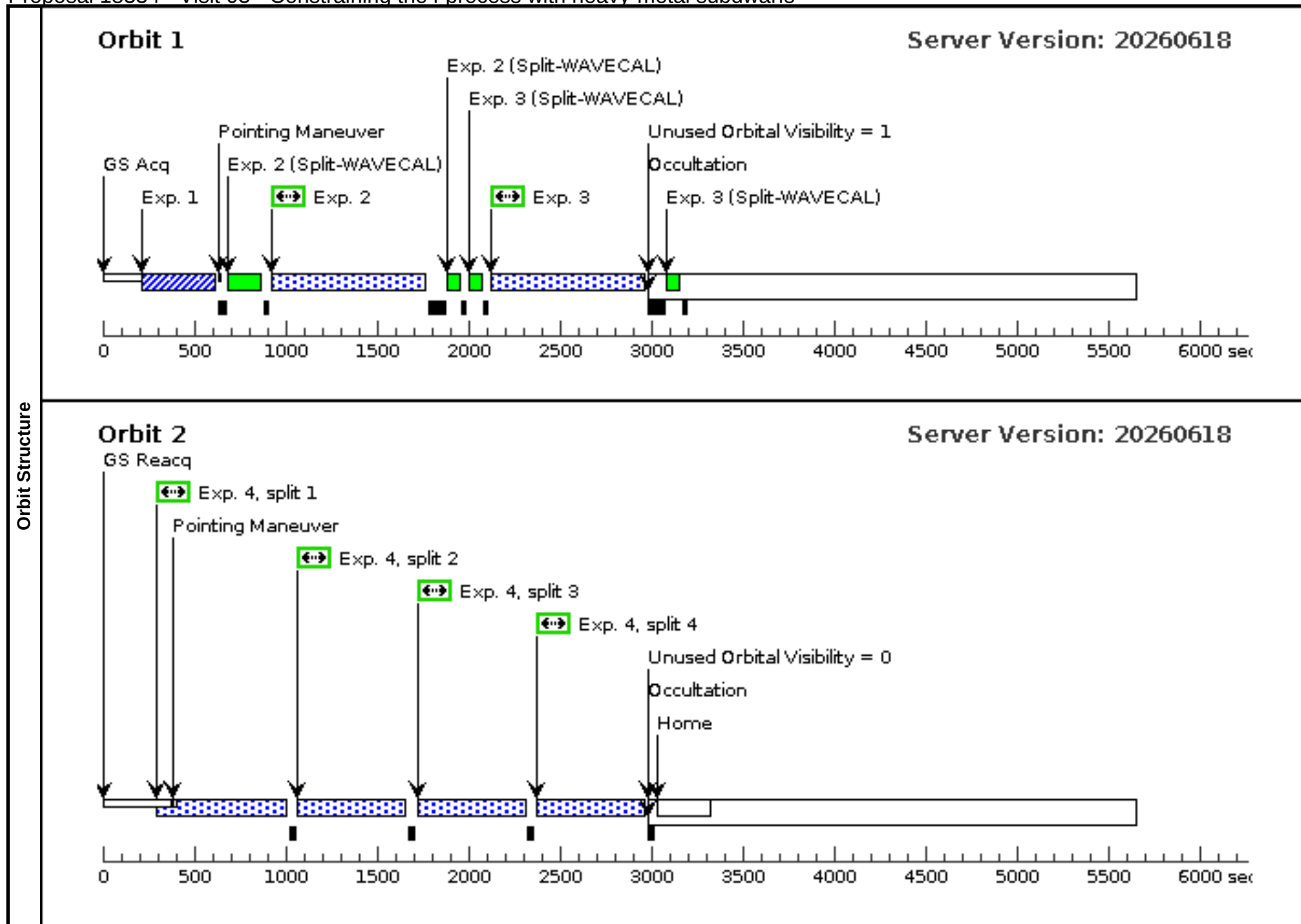
Proposal 18334 - Visit 02 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 02, implementation									Fri Aug 28 04:01:30 GMT 2026
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: COS/FUV, COS/NUV									
	Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(2)	HE-2359-2844	RA: 00 01 38.4853 (.4103554d) Dec: -28 27 43.03 (-28.46195d) Equinox: J2000	Proper Motion RA: 6.7 mas/yr Proper Motion Dec: -6.9609999172826065 mas/yr Parallax: 5.171E-4" Epoch of Position: 2000		V=16.127		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=[SDB] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.236 6242)	(2) HE-2359-2844	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				55 Secs (55 Secs)	
									[==>]	[1]
	2	(COS.sp.236 6170)	(2) HE-2359-2844	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=57 0; FP-POS=3; LIFETIME-POS=L P7			600 Secs (840 Secs)	
									[==>840.0 Secs]	[1]
	3	(COS.sp.236 6170)	(2) HE-2359-2844	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=57 0; FP-POS=4; LIFETIME-POS=L P7			600 Secs (840 Secs)	
									[==>840.0 Secs]	[1]
4	(COS.sp.236 6171)	(2) HE-2359-2844	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=19 50; FP-POS=ALL; LIFETIME-POS=L P10			250 Secs (2128 Secs)		
								[==>532.0 Secs (Split 1)] [==>532.0 Secs (Split 2)] [==>532.0 Secs (Split 3)] [==>532.0 Secs (Split 4)]	[2]	



Proposal 18334 - Visit 03 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 03, implementation										Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: COS/FUV, COS/NUV											
	Special Requirements: (none)											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(3)	HE-1256-2738	RA: 12 59 1.3946 (194.7558108d) Dec: -27 54 18.77 (-27.90521d) Equinox: J2000		Proper Motion RA: -21.343 mas/yr Proper Motion Dec: -4.898999964098039 mas/yr Parallax: 4.566E-4" Epoch of Position: 2000		V=16.46		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=[SDB] Extended=NO											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(COS.ta.236 6241)	(3) HE-1256-2738	COS/NUV, ACQ/IMAGE, BOA		MIRRORA				90 Secs (90 Secs)		
										[==>]		[1]
	2	(COS.sp.236 6218)	(3) HE-1256-2738	COS/FUV, TIME-TAG, PSA		G130M 1291 A	BUFFER-TIME=1000; FP-POS=3; LIFETIME-POS=L P7			600 Secs (790 Secs)		
										[==>790.0 Secs]		[1]
	3	(COS.sp.236 6218)	(3) HE-1256-2738	COS/FUV, TIME-TAG, PSA		G130M 1291 A	BUFFER-TIME=1000; FP-POS=4; LIFETIME-POS=L P7			600 Secs (790 Secs)		
										[==>790.0 Secs]		[1]
	4	(COS.sp.236 6216)	(3) HE-1256-2738	COS/FUV, TIME-TAG, PSA		G160M 1600 A	BUFFER-TIME=3100; FP-POS=ALL; LIFETIME-POS=L P10			250 Secs (2156 Secs)		
									[==>539.0 Secs (Split 1)] [==>539.0 Secs (Split 2)] [==>539.0 Secs (Split 3)] [==>539.0 Secs (Split 4)]		[2]	

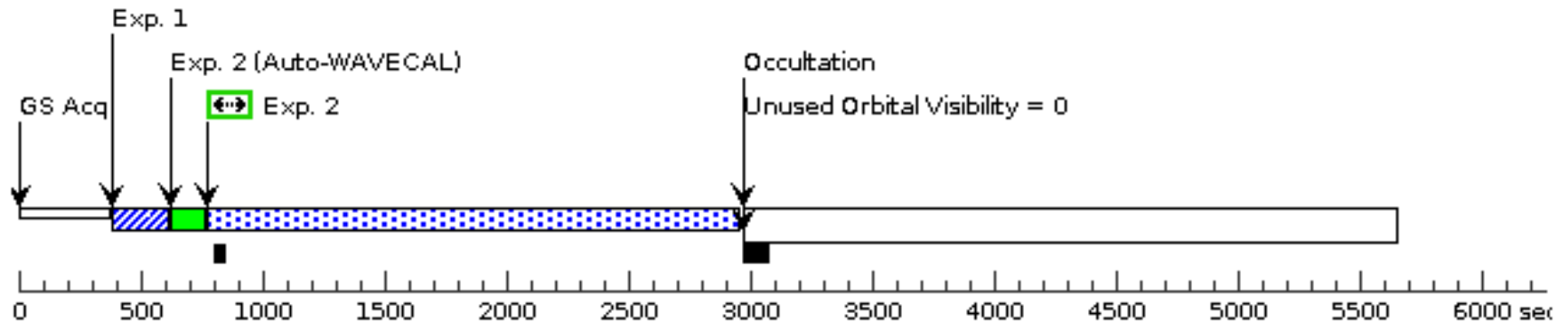


Proposal 18334 - Visit 04 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 04, implementation								Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA									
	Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(4)	FEIGE-46	RA: 11 37 26.3701 (174.3598754d) Dec: +14 10 14.11 (14.17059d) Equinox: J2000	Proper Motion RA: -80.009 mas/yr Proper Motion Dec: -45.002000001659326 mas/yr Parallax: 0.0020089" Epoch of Position: 2000		V=13.24		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=[SDB] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.236 6132)	(4) FEIGE-46	STIS/CCD, ACQ, F28X50LP	MIRROR				1.2 Secs (1.2 Secs)	
									[==>]	[1]
	2	(STIS.sp.23 66133)	(4) FEIGE-46	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				1600 Secs (2167 Secs)	
									[==>2167.0 Secs]	[1]
	3	(STIS.sp.23 66133)	(4) FEIGE-46	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				1800 Secs (2564 Secs)	
									[==>2564.0 Secs]	[2]
4	(STIS.sp.23 66133)	(4) FEIGE-46	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				1800 Secs (2564 Secs)		
								[==>2564.0 Secs]	[3]	

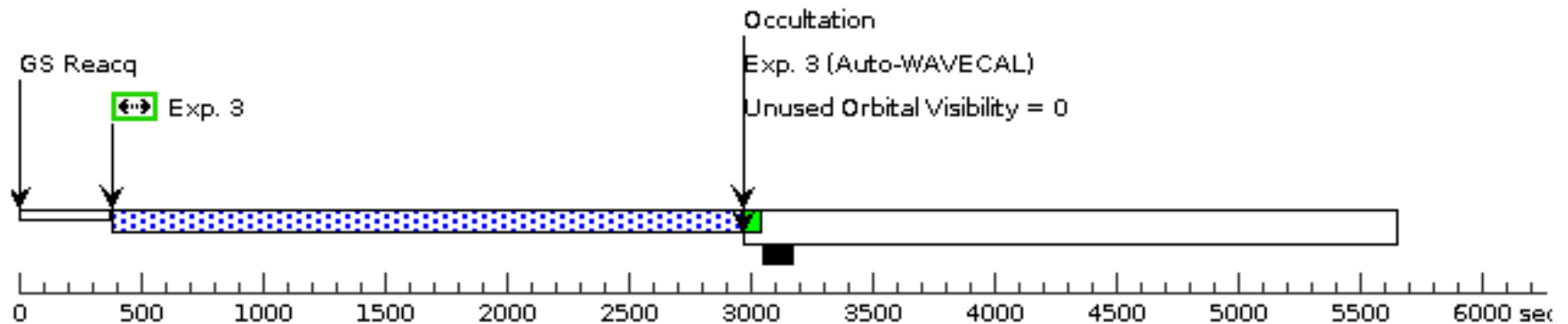
Orbit 1

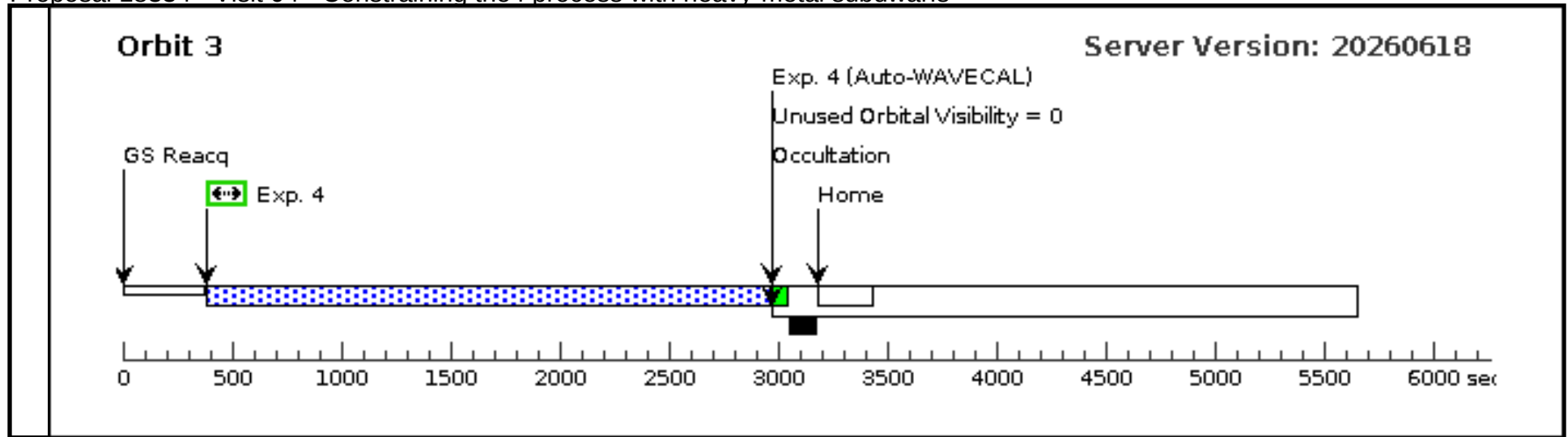
Server Version: 20260618



Orbit 2

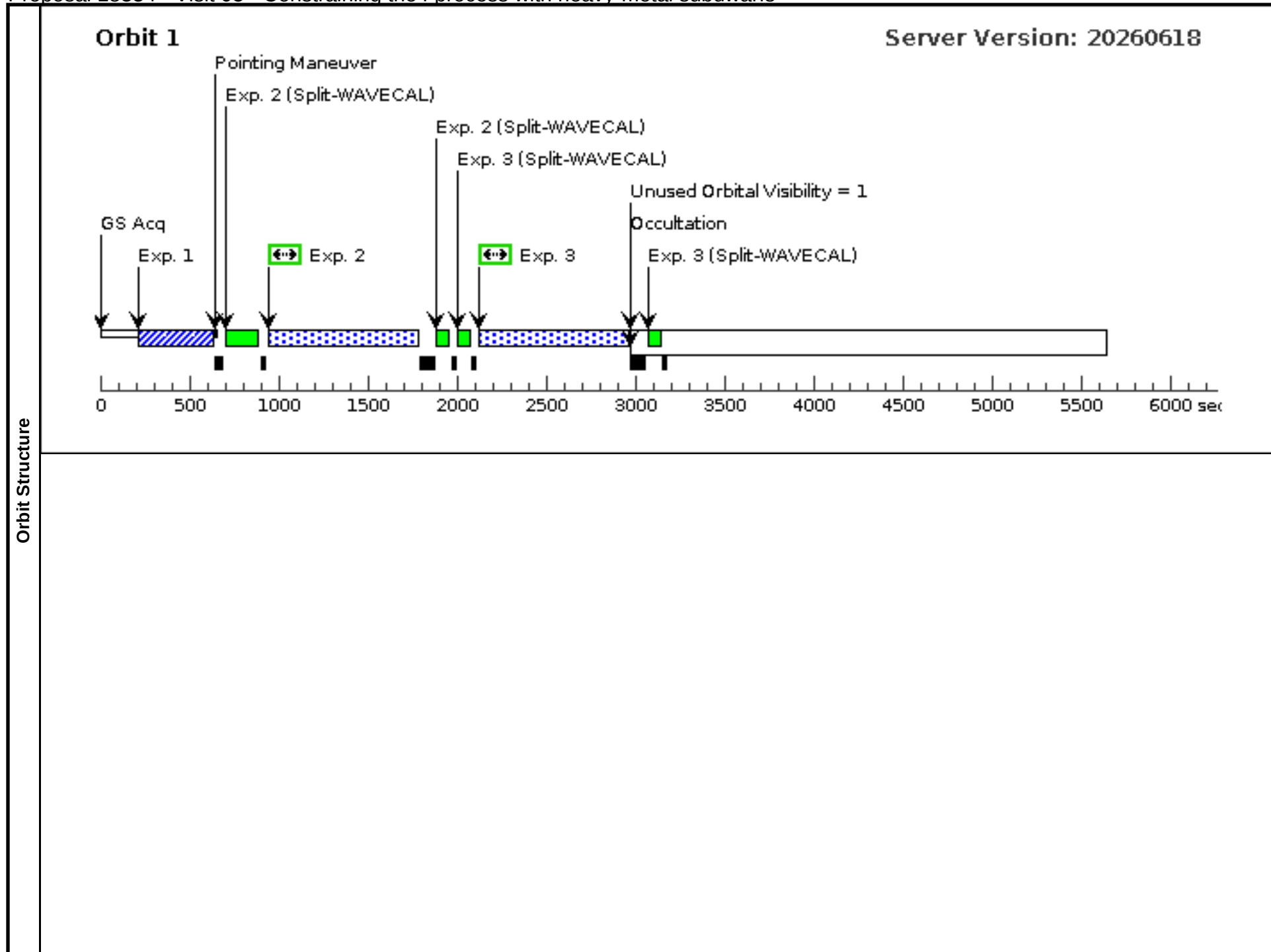
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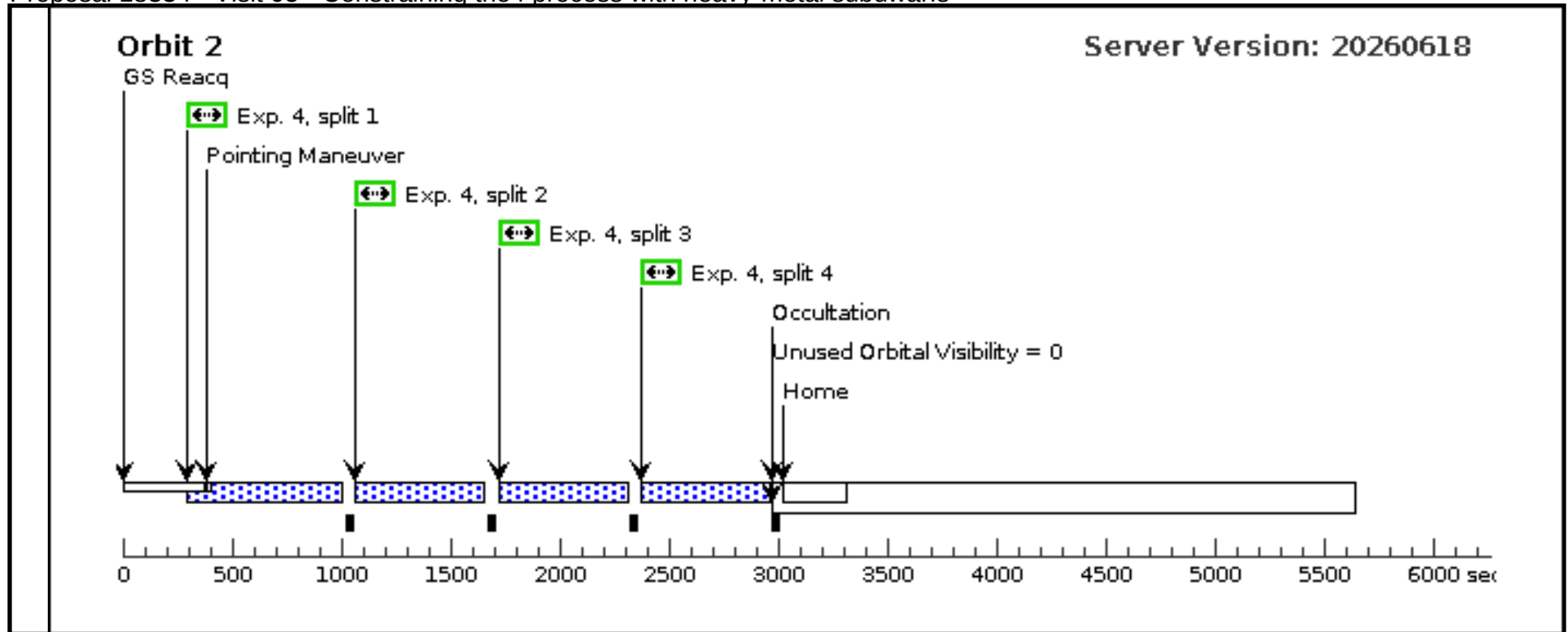




Proposal 18334 - Visit 05 - Constraining the i-process with heavy-metal subdwarfs

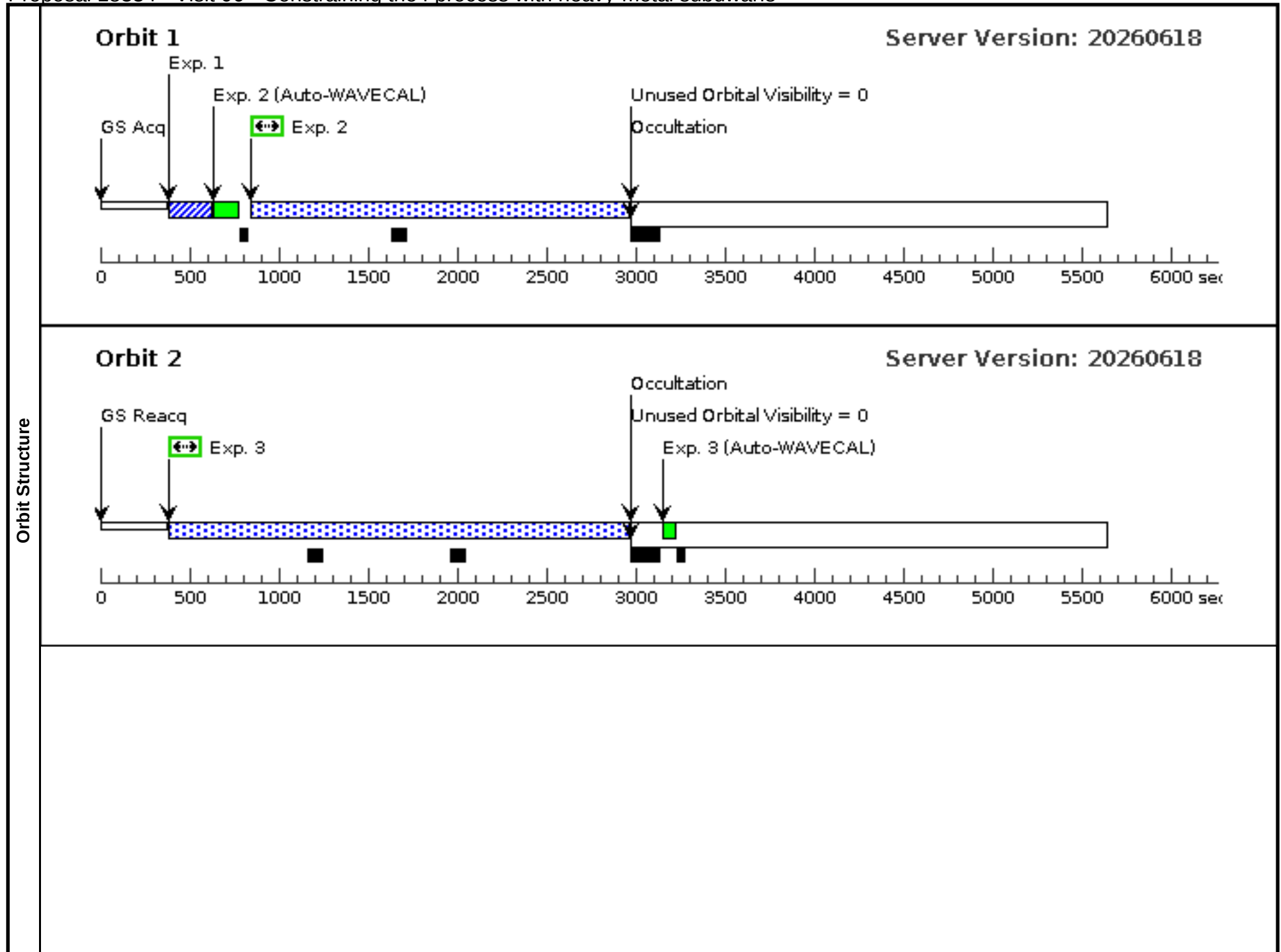
Visit	Proposal 18334, Visit 05, implementation									Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: COS/FUV, COS/NUV										
	Special Requirements: (none)										
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(5)	PHL-417	RA: 23 11 5.1030 (347.7712625d) Dec: -01 37 6.07 (-1.61835d) Equinox: J2000		Proper Motion RA: 7.511 mas/yr Proper Motion Dec: -13.321 mas/yr Parallax: 0.3891e-3" Epoch of Position: 2016		V=17.1		Reference Frame: ICRS		
	Comments: Category=STAR Description=[SDB] Extended=NO										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(COS.ta.236 6239)	(5) PHL-417	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				98 Secs (98 Secs)		
									[==>]		[1]
	2	(COS.sp.236 6222)	(5) PHL-417	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=10 40; FP-POS=3; LIFETIME-POS=L P7			600 Secs (785 Secs)		
									[==>785.0 Secs]		[1]
	3	(COS.sp.236 6222)	(5) PHL-417	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=10 40; FP-POS=4; LIFETIME-POS=L P7			600 Secs (785 Secs)		
									[==>785.0 Secs]		[1]
	4	(COS.sp.236 6223)	(5) PHL-417	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=34 00; FP-POS=ALL; LIFETIME-POS=L P10			250 Secs (2152 Secs)		
								[==>538.0 Secs (Split 1)] [==>538.0 Secs (Split 2)] [==>538.0 Secs (Split 3)] [==>538.0 Secs (Split 4)]		[2]	

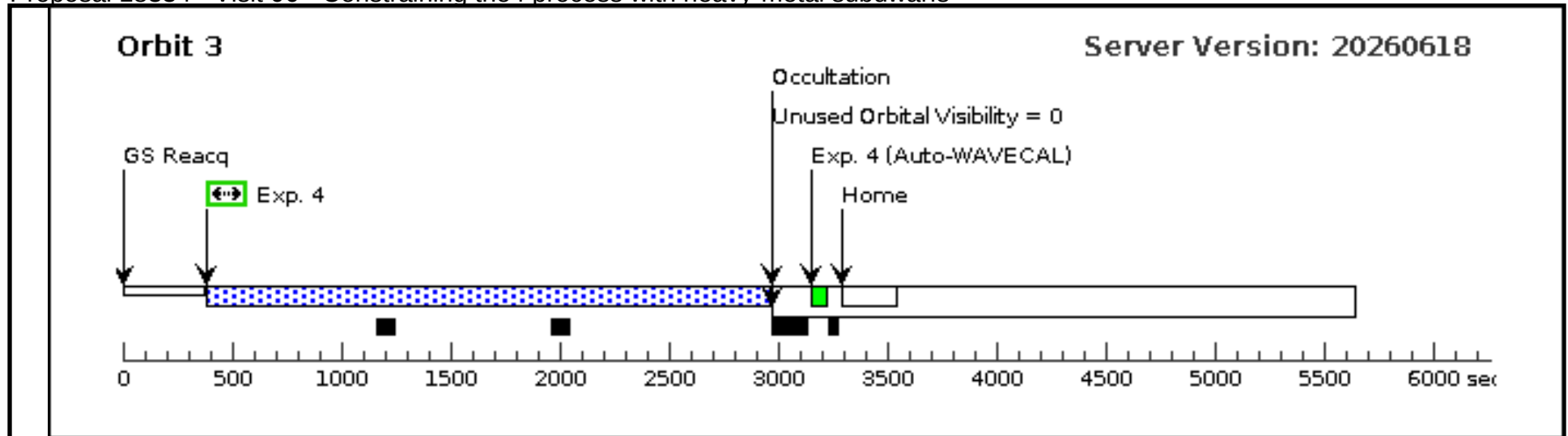




Proposal 18334 - Visit 06 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 06, implementation										Fri Aug 28 04:01:30 GMT 2026
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA										
	Special Requirements: (none)										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Fluxes	Miscellaneous			
	(6)	PG-1559+048	RA: 16 01 31.2726 (240.3803025d) Dec: +04 40 27.07 (4.67419d) Equinox: J2000	Proper Motion RA: -13.28 mas/yr Proper Motion Dec: -0.9929999350788421 mas/yr Parallax: 0.0013949000000000001" Epoch of Position: 2000			V=14.46	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=[SDB] Extended=NO										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(STIS.ta.236 6136)	(6) PG-1559+048	STIS/CCD, ACQ, F28X50LP	MIRROR				3.6 Secs (3.6 Secs)		
									[==>]	[1]	
	2	(STIS.sp.23 66137)	(6) PG-1559+048	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=79 0			1700 Secs (2104 Secs)		
									[==>2104.0 Secs]	[1]	
	3	(STIS.sp.23 66137)	(6) PG-1559+048	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=79 0			1700 Secs (2569 Secs)		
									[==>2569.0 Secs]	[2]	
4	(STIS.sp.23 66137)	(6) PG-1559+048	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=79 0			1700 Secs (2569 Secs)			
								[==>2569.0 Secs]	[3]		



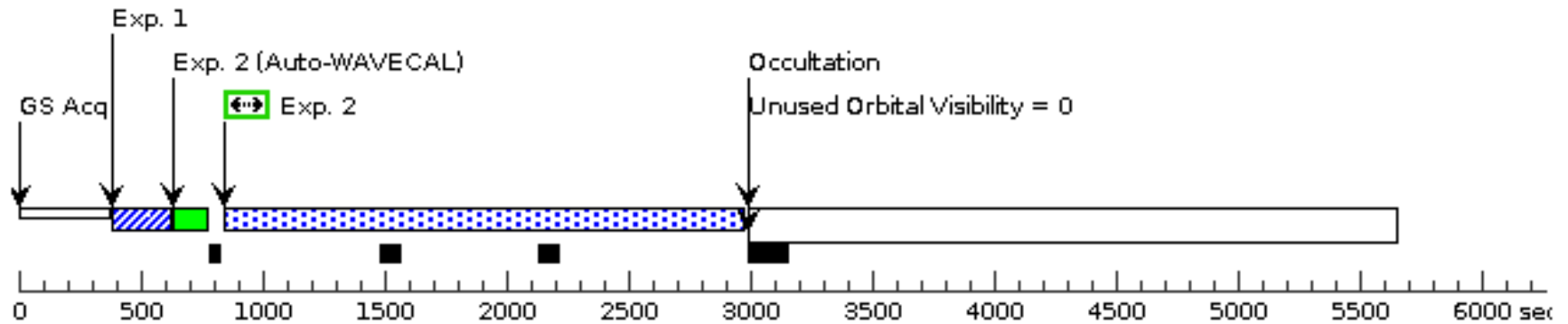


Proposal 18334 - Visit 07 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 07, implementation										Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA											
	Special Requirements: (none)											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(7)	FBS-1749+373	RA: 17 51 37.3294 (267.9055392d) Dec: +37 19 51.12 (37.33087d) Equinox: J2000		Proper Motion RA: -6.779 mas/yr Proper Motion Dec: 1.879 mas/yr Parallax: 0.001228599999999998" Epoch of Position: 2000		V=14.64		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=[SDB] Extended=NO											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1	(STIS.ta.236 6138)	(7) FBS-1749+373	STIS/CCD, ACQ, F28X50LP	MIRROR				4.0 Secs (4 Secs)			
									[==>]		[1]	
	2	(STIS.sp.23 66139)	(7) FBS-1749+373	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=64 0			1700 Secs (2115 Secs)			
									[==>2115.0 Secs]		[1]	
	3	(STIS.sp.23 66139)	(7) FBS-1749+373	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=64 0			1700 Secs (2582 Secs)			
								[==>2582.0 Secs]		[2]		
	4	(STIS.sp.23 66139)	(7) FBS-1749+373	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=64 0			1700 Secs (2582 Secs)			
									[==>2582.0 Secs]		[3]	

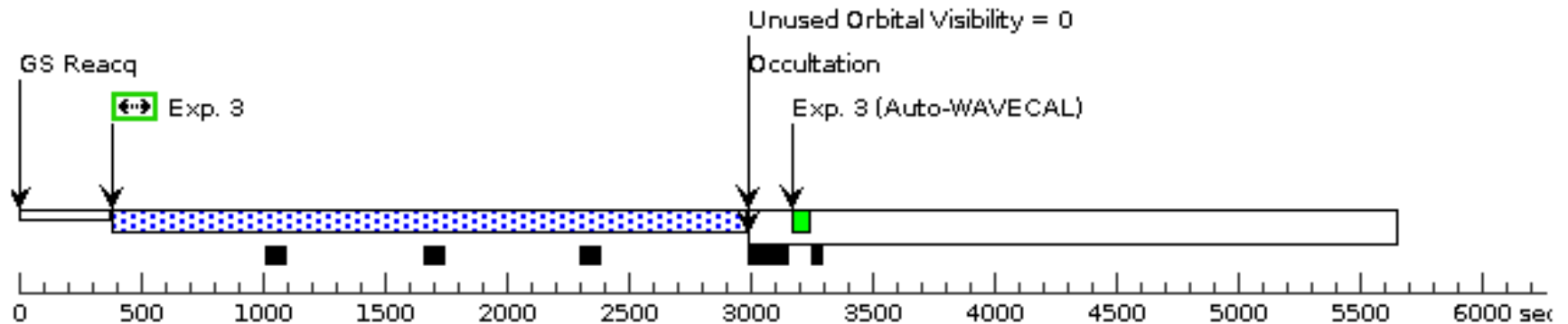
Orbit 1

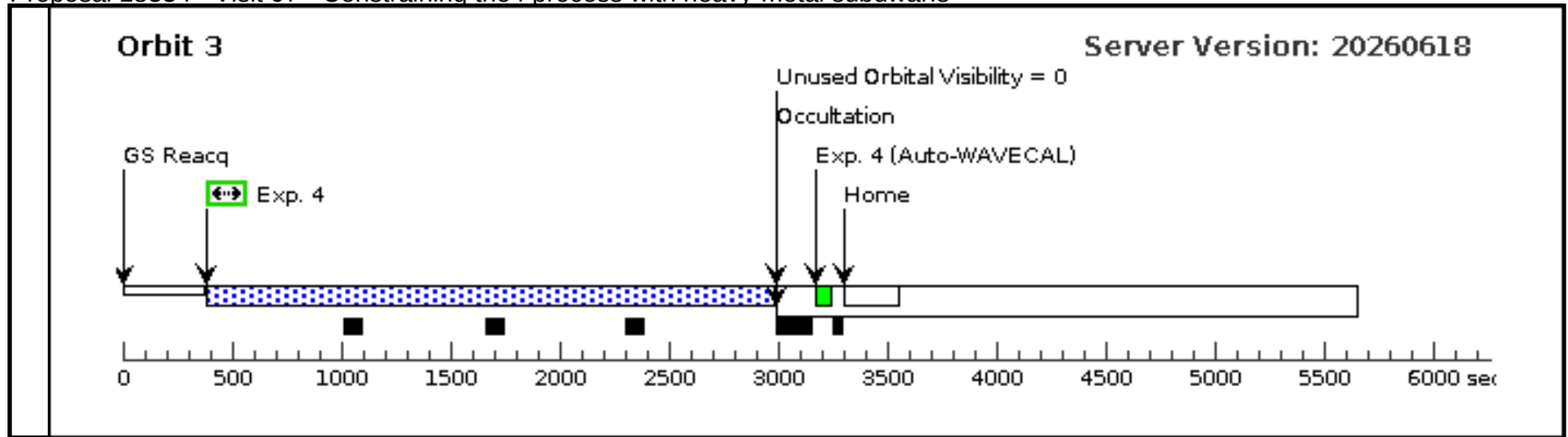
Server Version: 20260618



Orbit 2

Server Version: 20260618



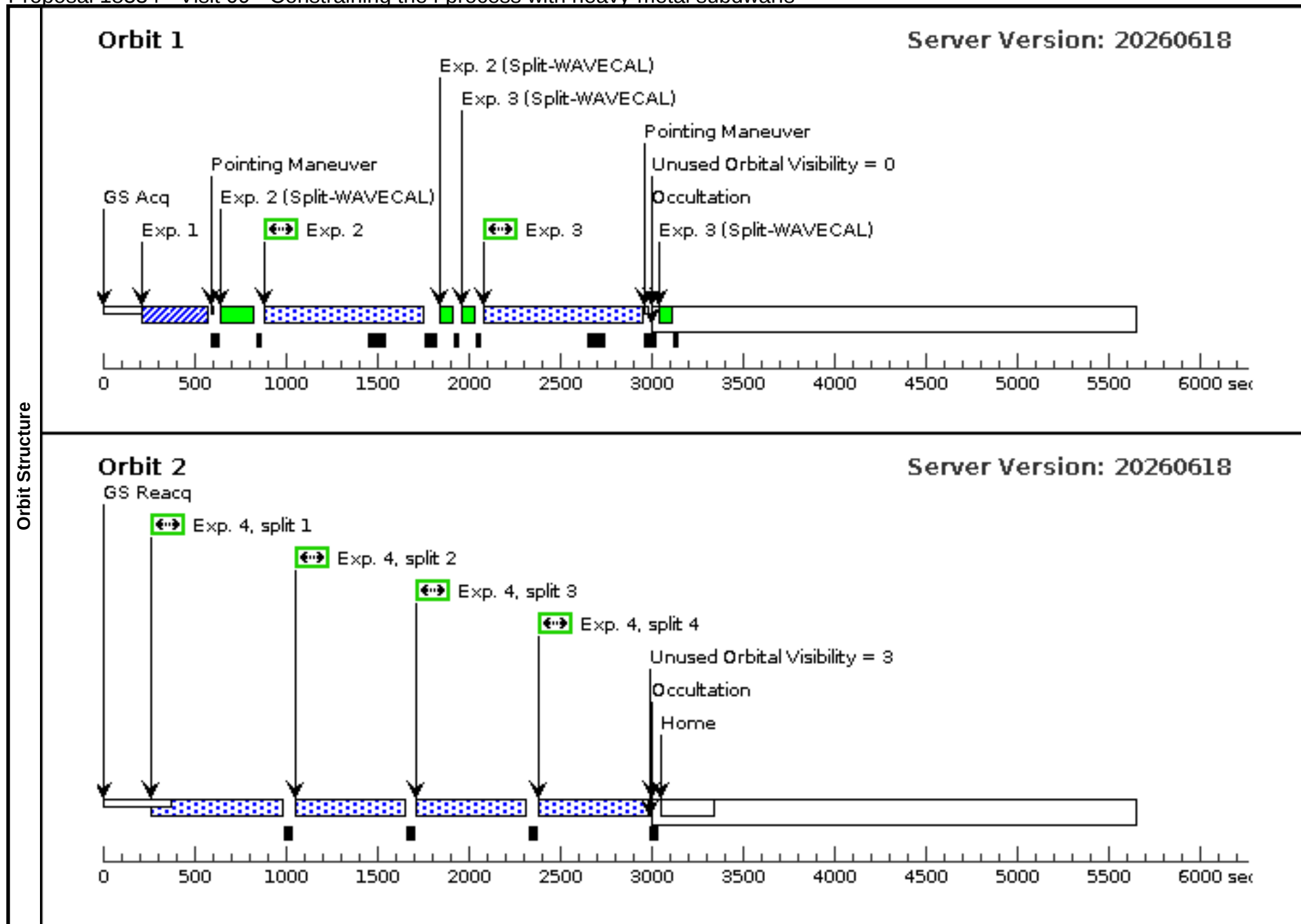


Proposal 18334 - Visit 08 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 08, implementation										Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA											
	Special Requirements: (none)											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(8)	CW83-0825+15	RA: 08 28 32.8677 (127.1369487d) Dec: +14 52 2.48 (14.86736d) Equinox: J2000		Proper Motion RA: -26.089 mas/yr Proper Motion Dec: -1.8820000150299165 mas/yr Parallax: 0.0037092" Epoch of Position: 2000		V=11.82		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=[SDB] Extended=NO											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(STIS.ta.236 6126)	(8) CW83-0825+15	STIS/CCD, ACQ, F28X50LP		MIRROR				0.5 Secs (0.5 Secs)		
										[>=>]		[1]
	2	(STIS.sp.23 66128)	(8) CW83-0825+15	STIS/FUV-MAMA, ACCUM, 0.2X0.2		E140M 1425 A				1900 Secs (2167 Secs)		
										[>=>2167.0 Secs]		[1]
Orbit Structure	Orbit 1 Server Version: 20260618 GS Acq Exp. 1 Exp. 2 (Auto-WAVECAL) Exp. 2 Unused Orbital Visibility = 2 Occultation Home </											

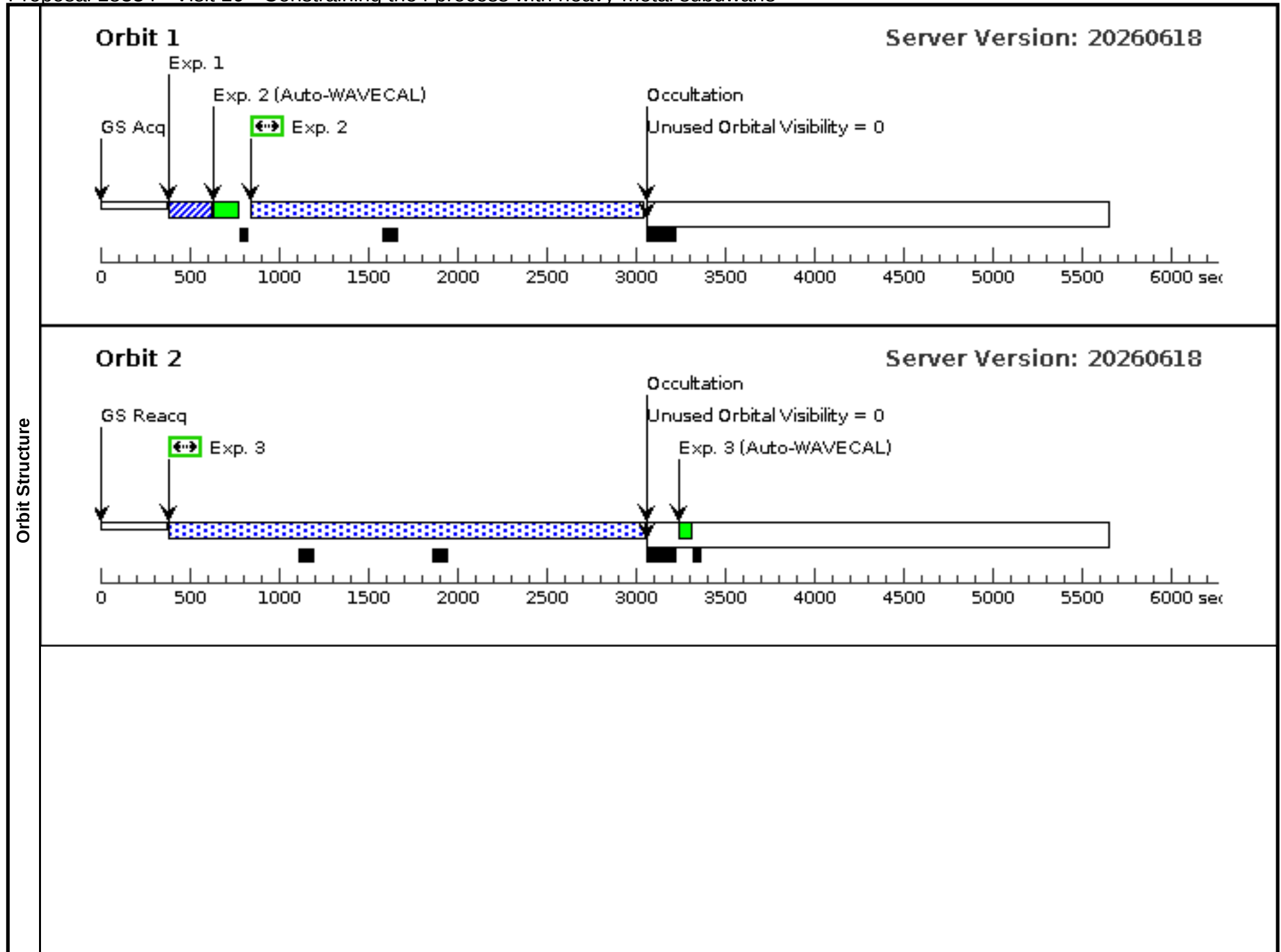
Proposal 18334 - Visit 09 - Constraining the i-process with heavy-metal subdwarfs

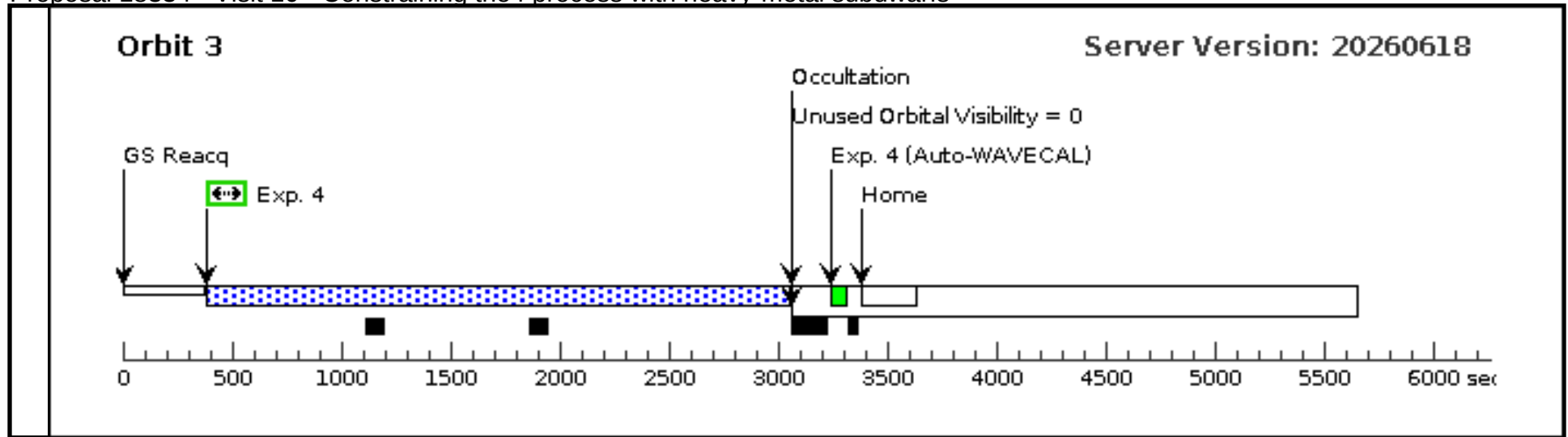
Visit	Proposal 18334, Visit 09, implementation									Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: COS/FUV, COS/NUV										
	Special Requirements: (none)										
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(9)	GALEX-J001235.6-422011	RA: 00 12 35.5690 (3.1482042d) Dec: -42 20 11.70 (-42.33658d) Equinox: J2000		Proper Motion RA: 8.605 mas/yr Proper Motion Dec: -15.868000059526821 mas/yr Parallax: 4.462999999999995E-4" Epoch of Position: 2000		V=16.202		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=[SDB] Extended=NO										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(COS.ta.236 6245)	(9) GALEX-J001235.6-422011	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				70 Secs (70 Secs)		
									[==>]		[1]
	2	(COS.sp.236 6227)	(9) GALEX-J001235.6-422011	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=53 0; FP-POS=3; LIFETIME-POS=L P7			600 Secs (818 Secs)		
									[==>818.0 Secs]		[1]
	3	(COS.sp.236 6227)	(9) GALEX-J001235.6-422011	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=53 0; FP-POS=4; LIFETIME-POS=L P7			600 Secs (818 Secs)		
									[==>818.0 Secs]		[1]
4	(COS.sp.236 6226)	(9) GALEX-J001235.6-422011	COS/FUV, TIME-TAG, PSA	G160M 1600 A	BUFFER-TIME=18 40; FP-POS=ALL; LIFETIME-POS=L P10			290 Secs (2176 Secs)			
									[==>544.0 Secs (Split 1)] [==>544.0 Secs (Split 2)] [==>544.0 Secs (Split 3)] [==>544.0 Secs (Split 4)]		[2]



Proposal 18334 - Visit 10 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 10, implementation								Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA									
	Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(10)	FAUST-4434	RA: 19 12 23.6407 (288.0985029d) Dec: -62 46 32.76 (-62.77577d) Equinox: J2000	Proper Motion RA: -41.716 mas/yr Proper Motion Dec: -69.30200004262588 mas/yr Parallax: 8.681E-4" Epoch of Position: 2000		V=14.6		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=[SDB] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.236 6110)	(10) FAUST-4434	STIS/CCD, ACQ, F28X50LP	MIRROR				4 Secs (4 Secs)	
									[==>]	[1]
	2	(STIS.sp.23 66153)	(10) FAUST-4434	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=74 0			1700 Secs (2187 Secs)	
									[==>2187.0 Secs]	[1]
	3	(STIS.sp.23 66153)	(10) FAUST-4434	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=74 0			1700 Secs (2654 Secs)	
									[==>2654.0 Secs]	[2]
4	(STIS.sp.23 66153)	(10) FAUST-4434	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=74 0			1700 Secs (2654 Secs)		
								[==>2654.0 Secs]	[3]	



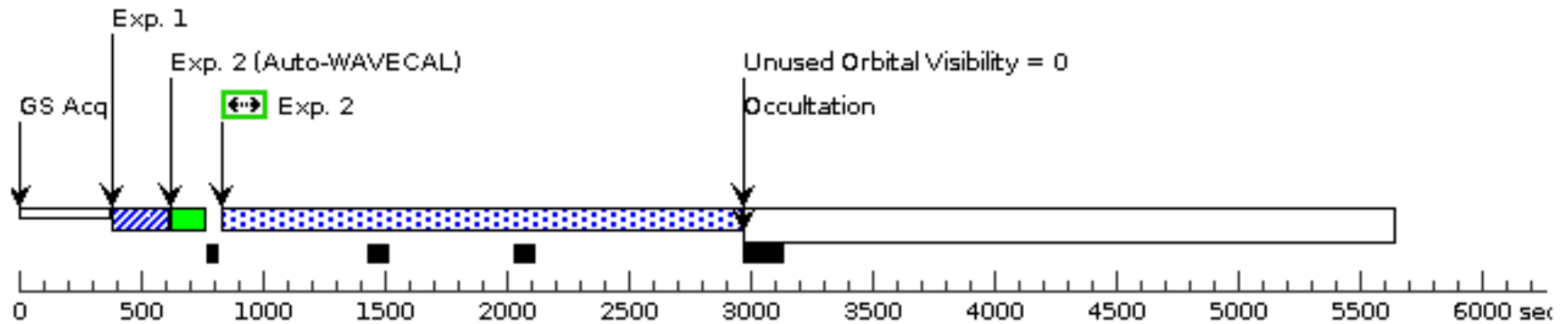


Proposal 18334 - Visit 11 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 11, implementation								Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA									
	Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(11)	PB-6355	RA: 01 16 27.3120 (19.1138000d) Dec: +06 03 11.61 (6.05322d) Equinox: J2000	Proper Motion RA: -7.325 mas/yr Proper Motion Dec: -10.783000016090227 mas/yr Parallax: 0.0013049" Epoch of Position: 2000		V=13.04		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=[SDB] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.236 6140)	(11) PB-6355	STIS/CCD, ACQ, F28X50LP	MIRROR				0.6 Secs (0.6 Secs)	
									[==>]	[1]
	Comments: Binary star, not resolved by HST; considered in all ETC runs									
	2	(STIS.sp.23 66141)	(11) PB-6355	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=60 0			1700 Secs (2114 Secs)	
									[==>2114.0 Secs]	[1]
	3	(STIS.sp.23 66141)	(11) PB-6355	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=60 0			1700 Secs (2567 Secs)	
								[==>2567.0 Secs]	[2]	
	4	(STIS.sp.23 66141)	(11) PB-6355	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=60 0			1700 Secs (2567 Secs)	
									[==>2567.0 Secs]	[3]

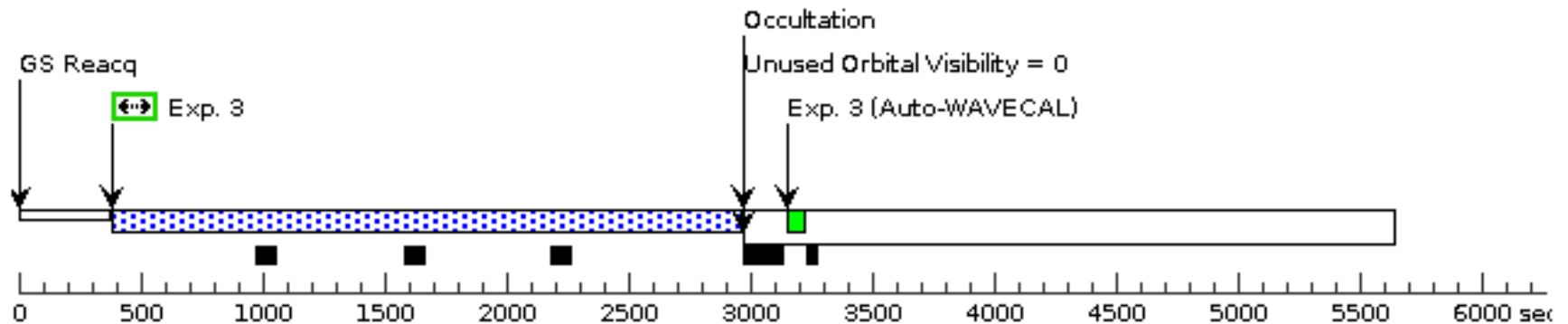
Orbit 1

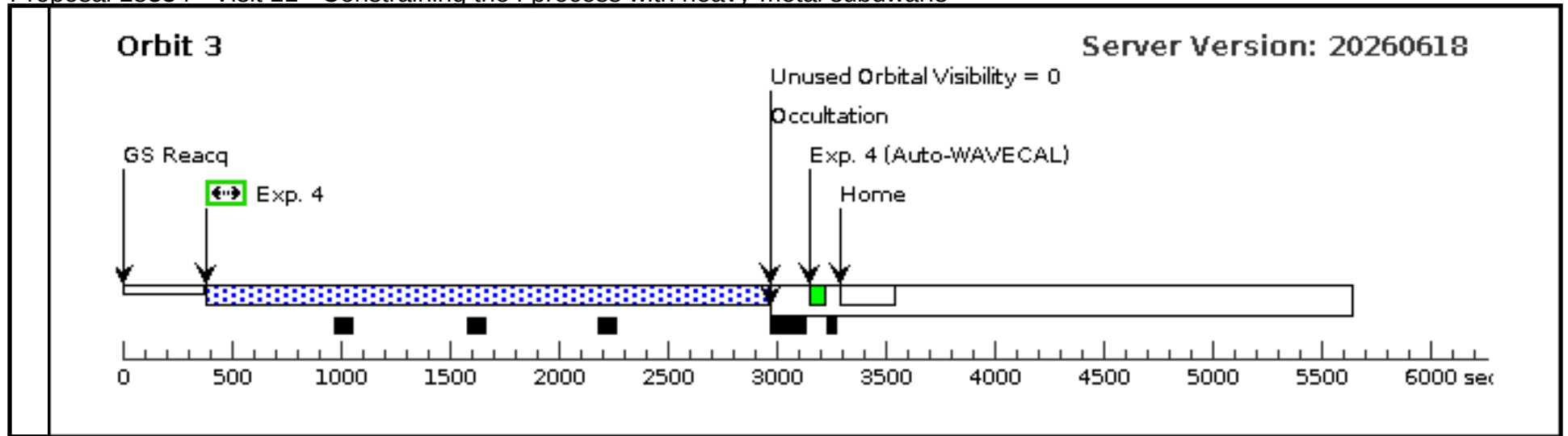
Server Version: 20260618



Orbit 2

Server Version: 20260618



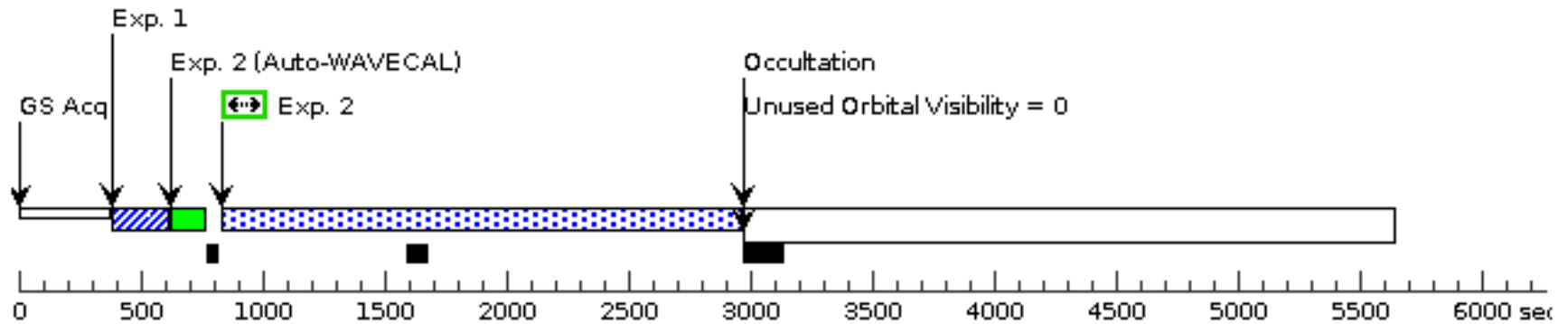


Proposal 18334 - Visit 12 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 12, implementation								Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA									
	Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(12)	GALEX-J202216.8+015225	RA: 20 22 16.7676 (305.5698650d) Dec: +01 52 24.36 (1.87343d) Equinox: J2000	Proper Motion RA: 9.905 mas/yr Proper Motion Dec: -3.56699993062648 mas/yr Parallax: 0.0013875" Epoch of Position: 2000		V=13.434		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=[SDB] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.236 6146)	(12) GALEX-J20221 6.8+015225	STIS/CCD, ACQ, F28X50LP	MIRROR				0.7 Secs (0.7 Secs)	
									[==>]	[1]
	2	(STIS.sp.23 66147)	(12) GALEX-J20221 6.8+015225	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=76 0			1700 Secs (2116 Secs)	
									[==>2116.0 Secs]	[1]
	3	(STIS.sp.23 66147)	(12) GALEX-J20221 6.8+015225	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=76 0			1700 Secs (2569 Secs)	
									[==>2569.0 Secs]	[2]
4	(STIS.sp.23 66147)	(12) GALEX-J20221 6.8+015225	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=76 0			1700 Secs (2569 Secs)		
								[==>2569.0 Secs]	[3]	

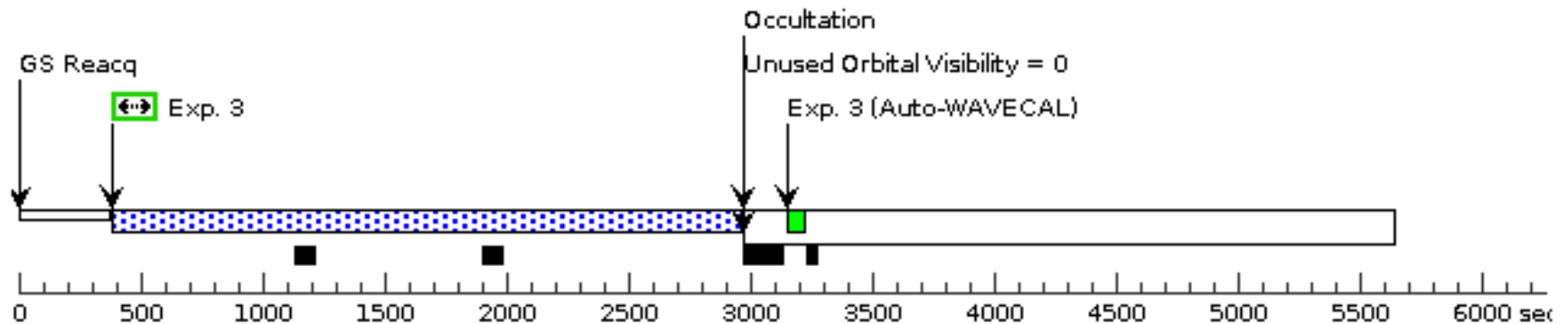
Orbit 1

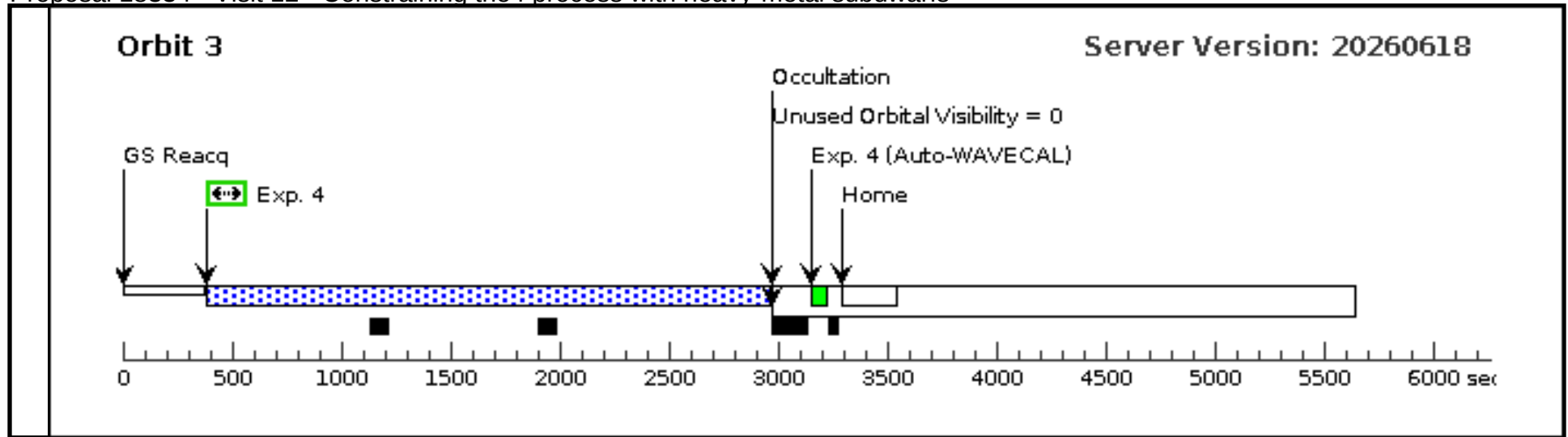
Server Version: 20260618



Orbit 2

Server Version: 20260618



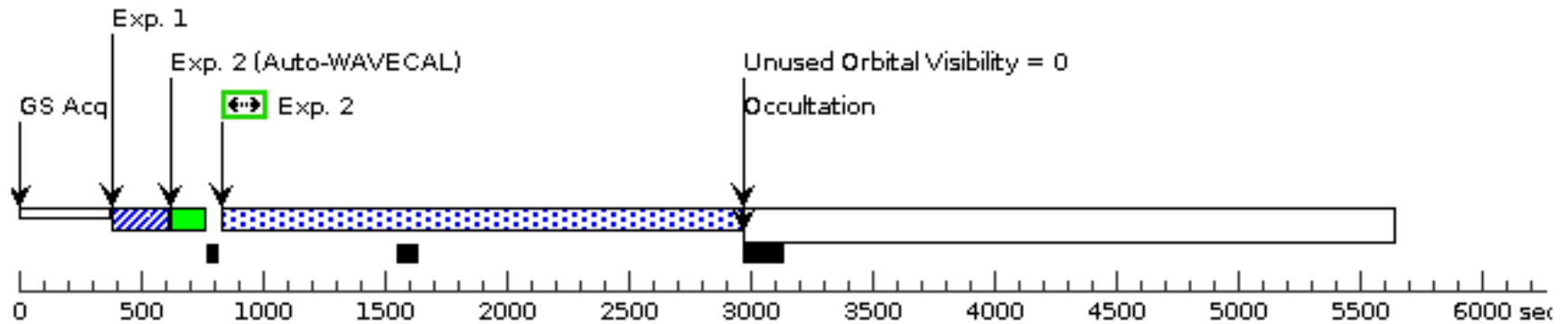


Proposal 18334 - Visit 13 - Constraining the i-process with heavy-metal subdwarfs

Visit	Proposal 18334, Visit 13, implementation										Fri Aug 28 04:01:30 GMT 2026	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA											
	Special Requirements: (none)											
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections			Fluxes		Miscellaneous			
	(13)	PG-1459-048	RA: 15 02 6.4303 (225.5267929d) Dec: -04 59 38.14 (-4.99393d) Equinox: J2000	Proper Motion RA: -8.452 mas/yr Proper Motion Dec: -13.199999966673204 mas/yr Parallax: 0.001286" Epoch of Position: 2000			V=13.47		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=[SDB] Extended=NO											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1	(STIS.ta.236 6150)	(13) PG-1459-048	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)			
									[==>]		[1]	
	2	(STIS.sp.23 66152)	(13) PG-1459-048	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=72 0			1700 Secs (2114 Secs)			
									[==>2114.0 Secs]		[1]	
	3	(STIS.sp.23 66152)	(13) PG-1459-048	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=72 0			1700 Secs (2569 Secs)			
									[==>2569.0 Secs]		[2]	
4	(STIS.sp.23 66152)	(13) PG-1459-048	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=72 0			1700 Secs (2569 Secs)				
									[==>2569.0 Secs]		[3]	

Orbit 1

Server Version: 20260618



Orbit 2

Server Version: 20260618

