



18060 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Cycle: 33, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
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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) WDJ000331.63-164358.41	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:14.0	yes
02	(2) WDJ041652.65-042723.91	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:14.0	yes
03	(3) WDJ044427.35-351745.09	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:14.0	yes
04	(4) WDJ070357.43+253418.34	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:15.0	yes
05	(5) WDJ074841.90-032334.14	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:15.0	yes

Proposal 18060 (STScI Edit Number: 0, Created: Wednesday, October 29, 2025, 11:00:20AM Eastern Standard Time) - Overview

<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>
06	(6) WDJ092345.74-302148.46	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:16.0	yes
07	(7) WDJ132550.44-601508.04	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:16.0	yes
08	(8) WDJ133601.82+482846.25 WAVE	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:17.0	yes
09	(9) WDJ141329.83+213739.88	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:17.0	yes
10	(10) WDJ154937.89-395455.21	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:17.0	yes
11	(11) WDJ055231.03+164250.27	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:18.0	yes
12	(12) WDJ165114.11-143535.30	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:18.0	yes
13	(13) WDJ191144.26-272954.76	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:19.0	yes
14	(14) WDJ204930.79-300502.86	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:19.0	yes
15	(15) WDJ210951.16+425705.12	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:19.0	yes
16	(16) WDJ214954.57+281659.59	STIS/CCD STIS/FUV-MAMA	1	29-Oct-2025 12:00:20.0	yes

16 Total Orbits Used

ABSTRACT

About 30% of white dwarfs have helium-rich envelopes where deep convection occurs, leading to an important but poorly understood phenomenon: the dredge-up of carbon from the core to the otherwise pristine helium surface. This process has far-reaching implications, as the atmospheric carbon content (1) impacts white dwarf age determinations used to probe stellar and Galactic evolution, (2) affects the interpretation of exoplanetary material

accreted onto white dwarfs, and (3) provides a rare empirical benchmark for the complex physics of dense plasmas. Yet, observational characterization is severely limited by the insensitivity of the optical window, where the trace carbon often remains spectroscopically invisible and only has a mild effect on the SED. Our understanding of carbon dredge-up thus rests on theoretical models, which depend on uncertain input physics and, crucially, have recently been called into question by Gaia observations. Fortunately, the ultraviolet window, and in particular the far-UV capabilities of HST, offers a clear and unique solution to this problem, as it is expected to reveal many strong carbon features allowing precise abundance determinations. We propose STIS far-UV spectroscopy of 16 bright helium-rich white dwarfs to detect and measure the surface carbon content across a key range of effective temperatures. These observations will enable the first robust test of dredge-up models, in turn providing valuable new constraints for dense matter physics and astrophysical applications of white dwarfs.

OBSERVING DESCRIPTION

The goal of this proposal is to obtain low-resolution far-ultraviolet spectroscopy of 16 white dwarfs with helium atmospheres and temperatures of 11000-15000 K to probe for carbon absorption features.

We will carry out the target acquisition with the STIS CCD and the F28x50LP broad-band filter, followed by STIS FUV spectroscopy using the G140L grating and the 52x2 aperture to maximise the throughput. Each observation uses one HST orbit.

Update 15-08-2025:

The target of Visit 11 has been changed. The original target (WDJ160139.76-034540.01) has a bright nearby companion and would have required a specific slit orientation that was unschedulable. The new target (WDJ055231.03+164250.27) does not have this problem, has otherwise similar parameters, and is equally useful for the science goal.

Update 29-10-2025:

The aperture for the science exposure of Visit 08 has been changed. The target of this visit (WDJ133601.82+482846.25) has an active M-dwarf companion, so we will use the 31x0.05NDA aperture to meet the UV-bright flare safety requirements. A peakup exposure has been added before the science exposure to center the target on the small slit. To maximize the science exposure time, automatic wavecal has been disabled and a GO-wavecal exposure has been added after the science exposure.

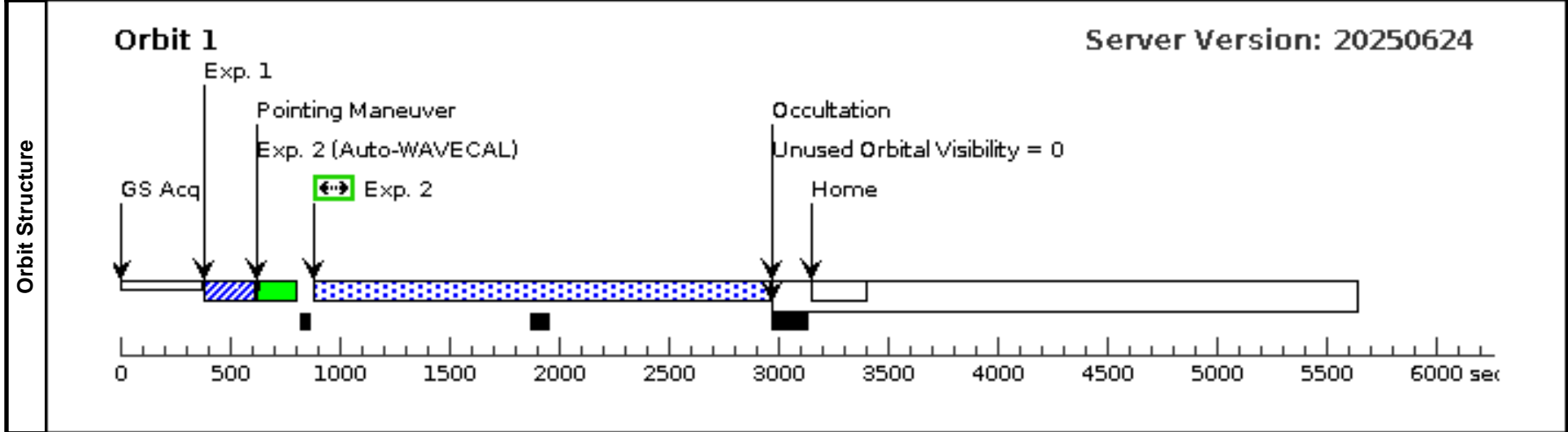
Proposal 18060 - Visit 01 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 01, scheduling				
	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)	WDJ000331.63-164358.41	RA: 00 03 31.6265 (.8817771d) Dec: -16 43 58.41 (-16.73289d) Equinox: J2000	Proper Motion RA: 247.215 mas/yr Proper Motion Dec: 1.104 mas/yr Parallax: 0.0262578" Epoch of Position: 2000	V=14.65	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i> Category=STAR Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 3933)	(1) WDJ000331.63-1 64358.41	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 23949)	(1) WDJ000331.63-1 64358.41	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=95 3			2027 Secs (2027 Secs)	
									[==>]	[1]



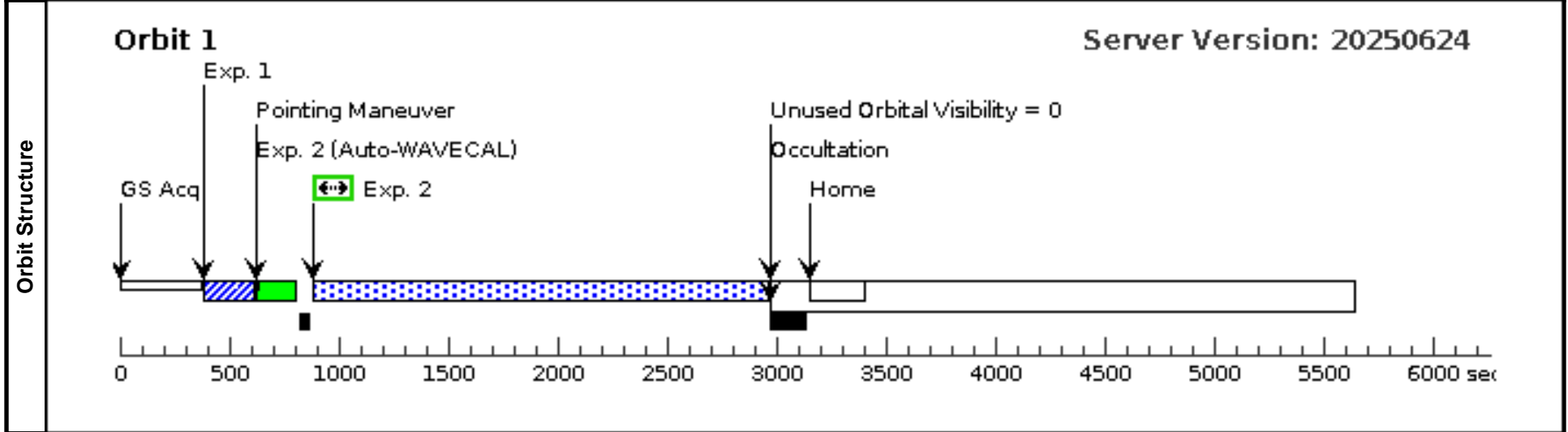
Proposal 18060 - Visit 02 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 02, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	WDJ041652.65-042723.91	RA: 04 16 52.6475 (64.2193646d) Dec: -04 27 23.91 (-4.45664d) Equinox: J2000	Proper Motion RA: 4.246 mas/yr Proper Motion Dec: -41.621 mas/yr Parallax: 0.0186001" Epoch of Position: 2000	V=15.28	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 3992)	(2) WDJ041652.65-0 42723.91	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 23995)	(2) WDJ041652.65-0 42723.91	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=10 77			2030 Secs (2030 Secs)	
									[==>]	[1]



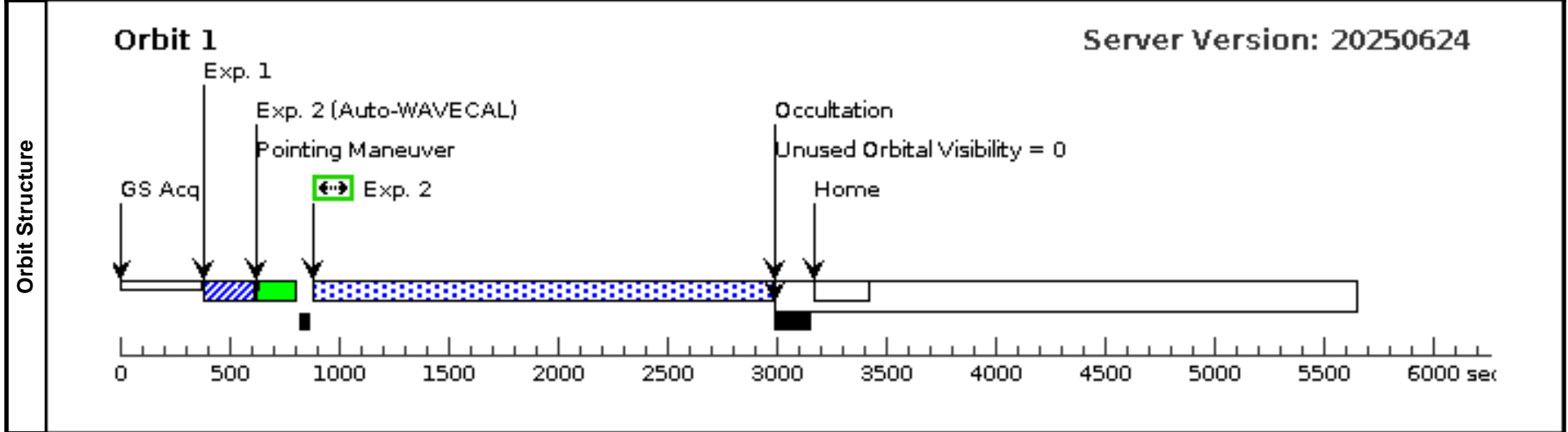
Proposal 18060 - Visit 03 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 03, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	WDJ044427.35-351745.09	RA: 04 44 27.3535 (71.1139729d) Dec: -35 17 45.09 (-35.29586d) Equinox: J2000	Proper Motion RA: -26.926 mas/yr Proper Motion Dec: -72.503 mas/yr Parallax: 0.0169224" Epoch of Position: 2000	V=15.71	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 3999)	(3) WDJ044427.35-3 51745.09	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24000)	(3) WDJ044427.35-3 51745.09	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=10 61			2043 Secs (2043 Secs)	
									[==>]	[1]



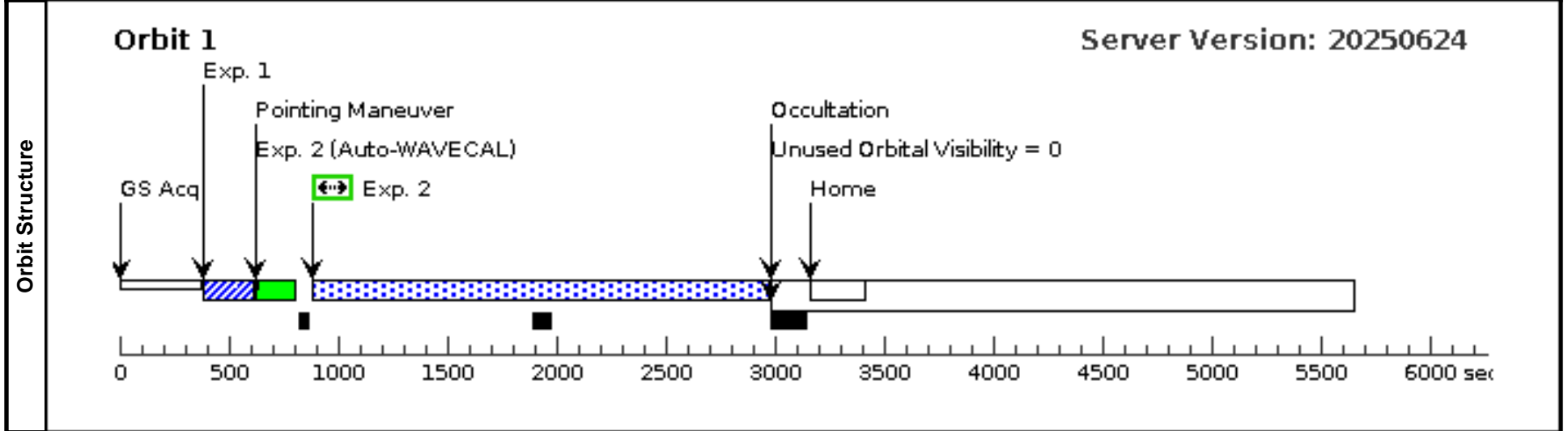
Proposal 18060 - Visit 04 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 04, scheduling				
	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)	WDJ070357.43+253418.34	RA: 07 03 57.4256 (105.9892733d) Dec: +25 34 18.33 (25.57176d) Equinox: J2000	Proper Motion RA: -58.434 mas/yr Proper Motion Dec: -55.622 mas/yr Parallax: 0.0390516" Epoch of Position: 2000	V=13.93	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4003)	(4) WDJ070357.43+253418.34	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24004)	(4) WDJ070357.43+253418.34	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=97 8			2034 Secs (2034 Secs)	
									[==>]	[1]



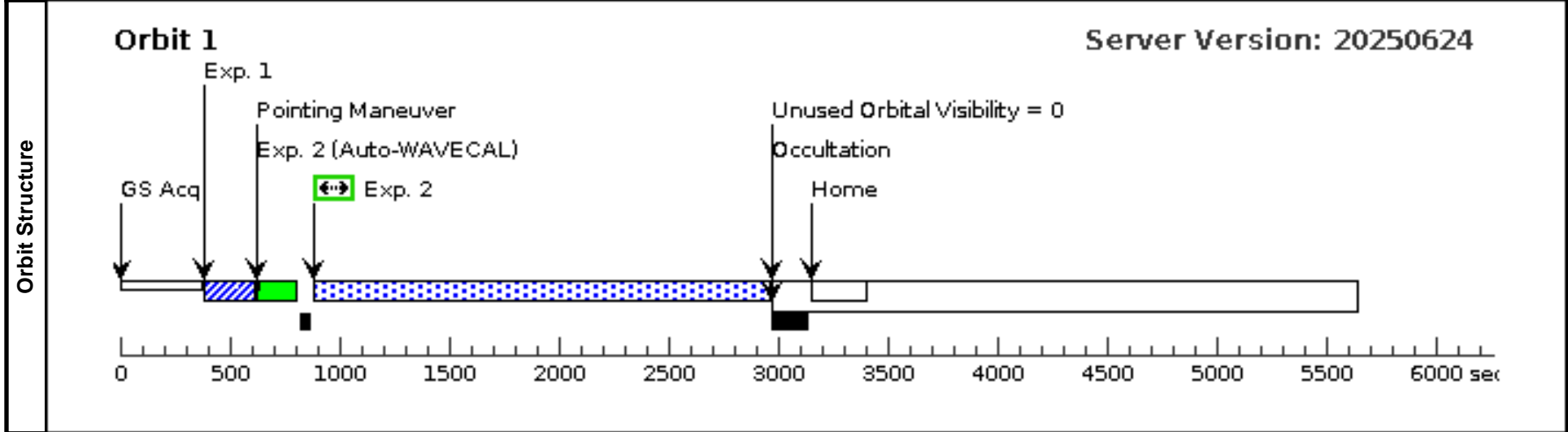
Proposal 18060 - Visit 05 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 05, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	WDJ074841.90-032334.14	RA: 07 48 41.8976 (117.1745733d) Dec: -03 23 34.14 (-3.39282d) Equinox: J2000	Proper Motion RA: 11.696 mas/yr Proper Motion Dec: -43.090 mas/yr Parallax: 0.0169037" Epoch of Position: 2000	V=15.69	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4006)	(5) WDJ074841.90-0 32334.14	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[=>]	[1]
	2	(STIS.sp.20 24009)	(5) WDJ074841.90-0 32334.14	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=11 66			2030 Secs (2030 Secs)	
									[=>]	[1]



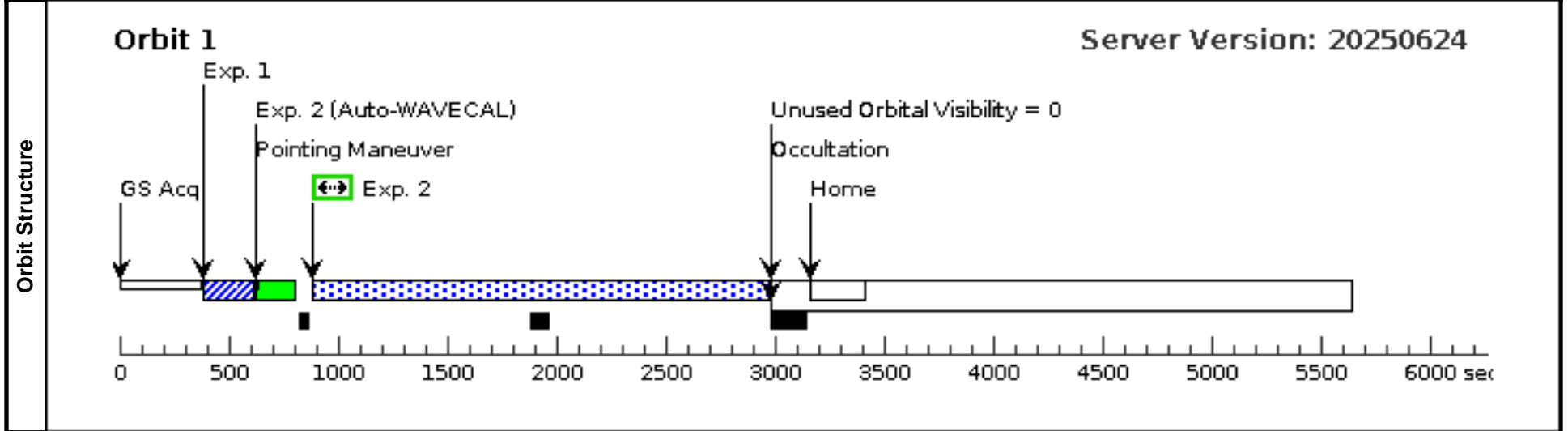
Proposal 18060 - Visit 06 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 06, scheduling				
	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)	WDJ092345.74-302148.46	RA: 09 23 45.7412 (140.9405883d) Dec: -30 21 48.46 (-30.36346d) Equinox: J2000	Proper Motion RA: -38.511 mas/yr Proper Motion Dec: 2.181 mas/yr Parallax: 0.0212979" Epoch of Position: 2000	V=14.97	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4010)	(6) WDJ092345.74-3 02148.46	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24011)	(6) WDJ092345.74-3 02148.46	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=96 2			2038 Secs (2038 Secs)	
									[==>]	[1]



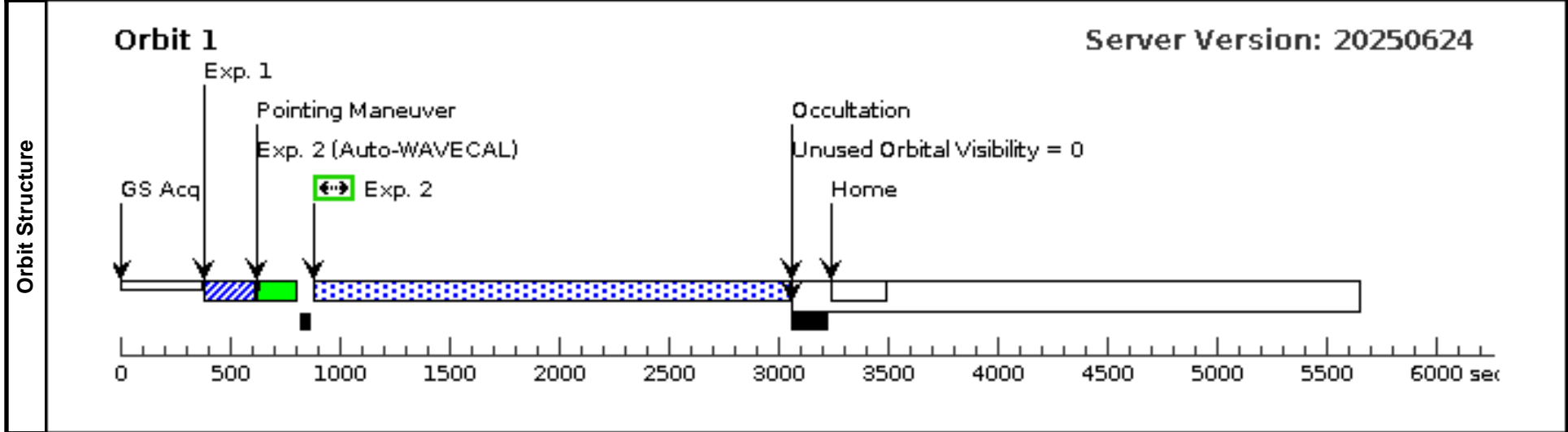
Proposal 18060 - Visit 07 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 07, scheduling				
	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)	WDJ132550.44-601508.04	RA: 13 25 50.4417 (201.4601737d) Dec: -60 15 8.04 (-60.25223d) Equinox: J2000	Proper Motion RA: -47.378 mas/yr Proper Motion Dec: 77.309 mas/yr Parallax: 0.0278243" Epoch of Position: 2000	V=14.81	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4012)	(7) WDJ132550.44-601508.04	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[=>]	[1]
	2	(STIS.sp.20 24013)	(7) WDJ132550.44-601508.04	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=11 58			2115 Secs (2115 Secs)	
									[=>]	[1]



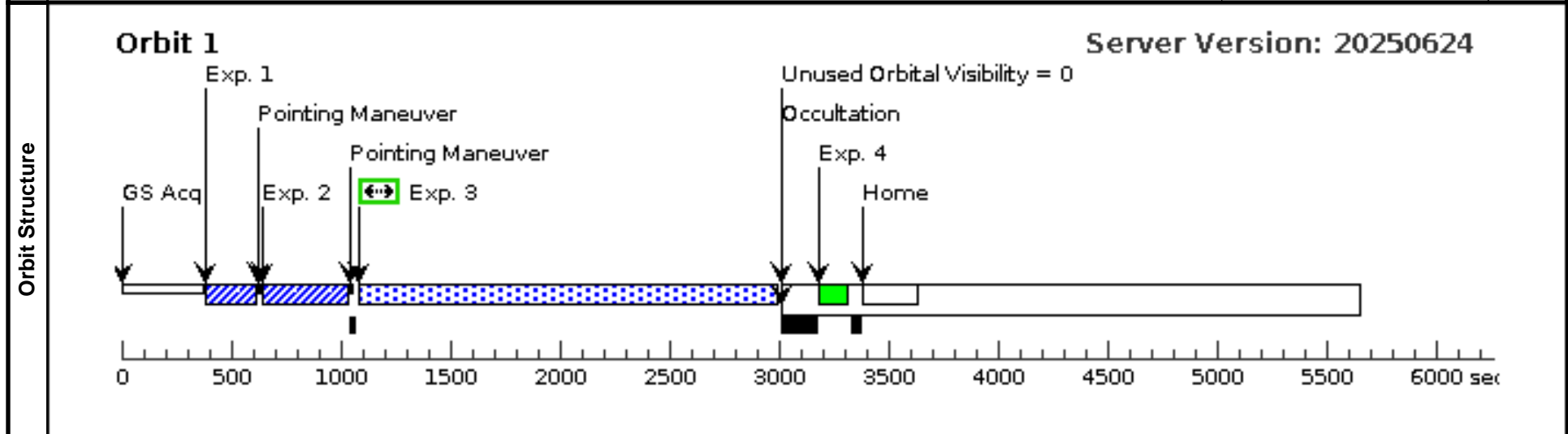
Proposal 18060 - Visit 08 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 08, implementation				
	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)	WDJ133601.82+482846.25	RA: 13 36 1.8225 (204.0075938d) Dec: +48 28 46.25 (48.47951d) Equinox: J2000	Proper Motion RA: -133.948 mas/yr Proper Motion Dec: -42.905 mas/yr Parallax: 0.027129" Epoch of Position: 2000	V=14.10	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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=[DB]</i>					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4017)	(8) WDJ133601.82+482846.25	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs) [==>]	[1]
	2	(STIS.ta.221 8766)	(8) WDJ133601.82+482846.25	STIS/CCD, ACQ/PEAK, 31X0.05NDA	MIRROR				4 Secs (4 Secs) [==>]	[1]
	3	(STIS.sp.22 18767)	(8) WDJ133601.82+482846.25	STIS/FUV-MAMA, TIME-TAG, 31X0.05NDA	G140L 1425 A	BUFFER-TIME=52 72;			1802 Secs (1802 Secs) [==>]	[1]
	4		WAVE	STIS/FUV-MAMA, ACCUM, 52X0.05	G140L 1425 A		WAVECAL=NO		[==>]	[1]



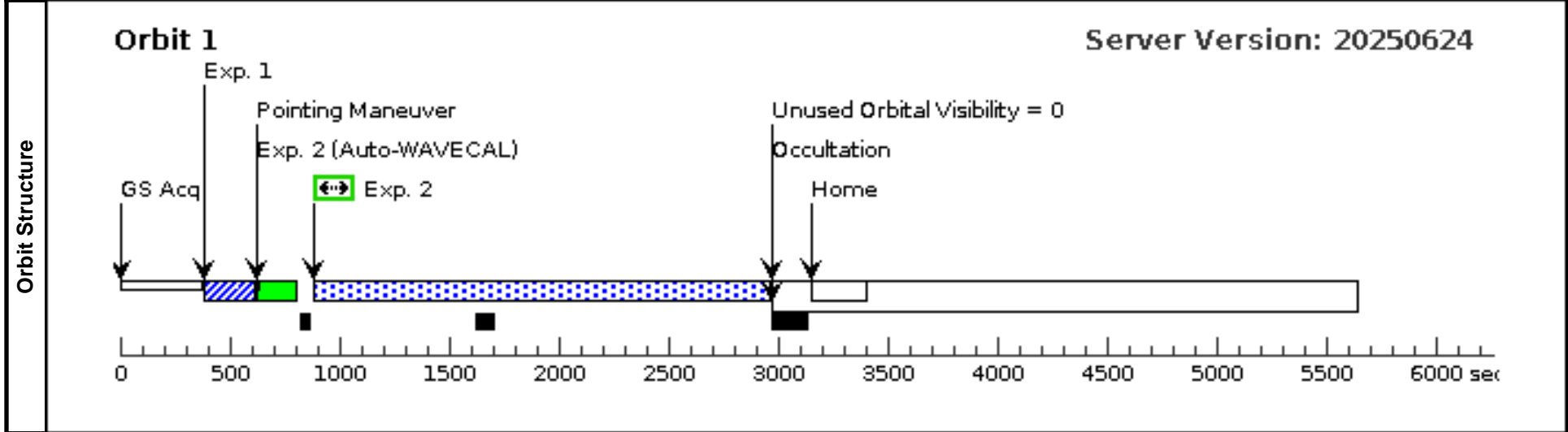
Proposal 18060 - Visit 09 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 09, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(9)	WDJ141329.83+213739.88	RA: 14 13 29.8347 (213.3743113d) Dec: +21 37 39.88 (21.62774d) Equinox: J2000	Proper Motion RA: -60.979 mas/yr Proper Motion Dec: 104.967 mas/yr Parallax: 0.0241089" Epoch of Position: 2000	V=14.45	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4022)	(9) WDJ141329.83+ 213739.88	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24023)	(9) WDJ141329.83+ 213739.88	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=70 9			2030 Secs (2030 Secs)	
									[==>]	[1]



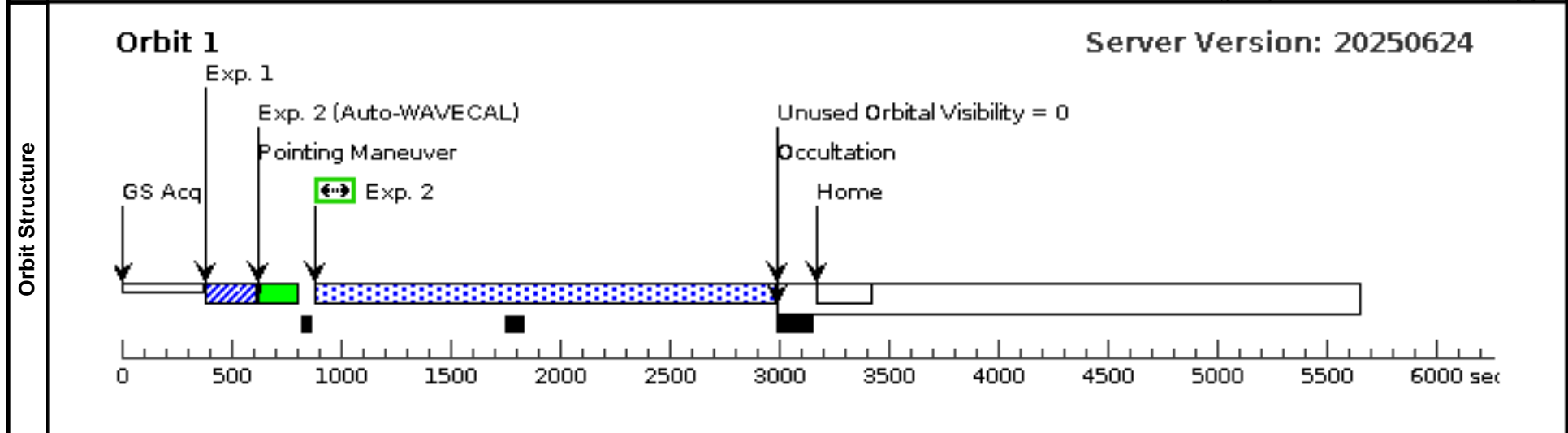
Proposal 18060 - Visit 10 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 10, scheduling				
	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)	WDJ154937.89-395455.21	RA: 15 49 37.8929 (237.4078871d) Dec: -39 54 55.21 (-39.91534d) Equinox: J2000	Proper Motion RA: -57.411 mas/yr Proper Motion Dec: -78.888 mas/yr Parallax: 0.0264573" Epoch of Position: 2000	V=14.43	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4027)	(10) WDJ154937.89-395455.21	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[=>]	[1]
	2	(STIS.sp.20 24028)	(10) WDJ154937.89-395455.21	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A		BUFFER-TIME=84 1		2043 Secs (2043 Secs)	
									[=>]	[1]



Proposal 18060 - Visit 11 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 11, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD, STIS/FUV-MAMA Special Requirements: (none) <i>Comments: The target of this visit has been changed. The original target (WDJ160139.76-034540.01) has a bright nearby companion and would have required a specific slit orientation that was unschedulable. The new target (WDJ055231.03+164250.27) does not have this problem, has otherwise similar parameters, and is equally useful for the science goal.</i>				

Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(11)</td> <td>WDJ055231.03+164250.27</td> <td>RA: 05 52 31.0336 (88.1293067d) Dec: +16 42 50.27 (16.71396d) Equinox: J2000</td> <td>Proper Motion RA: 12.927 mas/yr Proper Motion Dec: -57.890 mas/yr Parallax: 0.024968" Epoch of Position: 2000</td> <td>V=15.10</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(11)	WDJ055231.03+164250.27	RA: 05 52 31.0336 (88.1293067d) Dec: +16 42 50.27 (16.71396d) Equinox: J2000	Proper Motion RA: 12.927 mas/yr Proper Motion Dec: -57.890 mas/yr Parallax: 0.024968" Epoch of Position: 2000	V=15.10	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous							
(11)	WDJ055231.03+164250.27	RA: 05 52 31.0336 (88.1293067d) Dec: +16 42 50.27 (16.71396d) Equinox: J2000	Proper Motion RA: 12.927 mas/yr Proper Motion Dec: -57.890 mas/yr Parallax: 0.024968" Epoch of Position: 2000	V=15.10	Reference Frame: ICRS								
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> 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=[DB]													

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.2026270)	(11) WDJ055231.03+164250.27	STIS/CCD, ACQ, F28X50LP	MIRROR					1 Secs (1 Secs) [==>]
2	(STIS.sp.2026271)	(11) WDJ055231.03+164250.27	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=11 11				2027 Secs (2027 Secs) [==>]	[1]



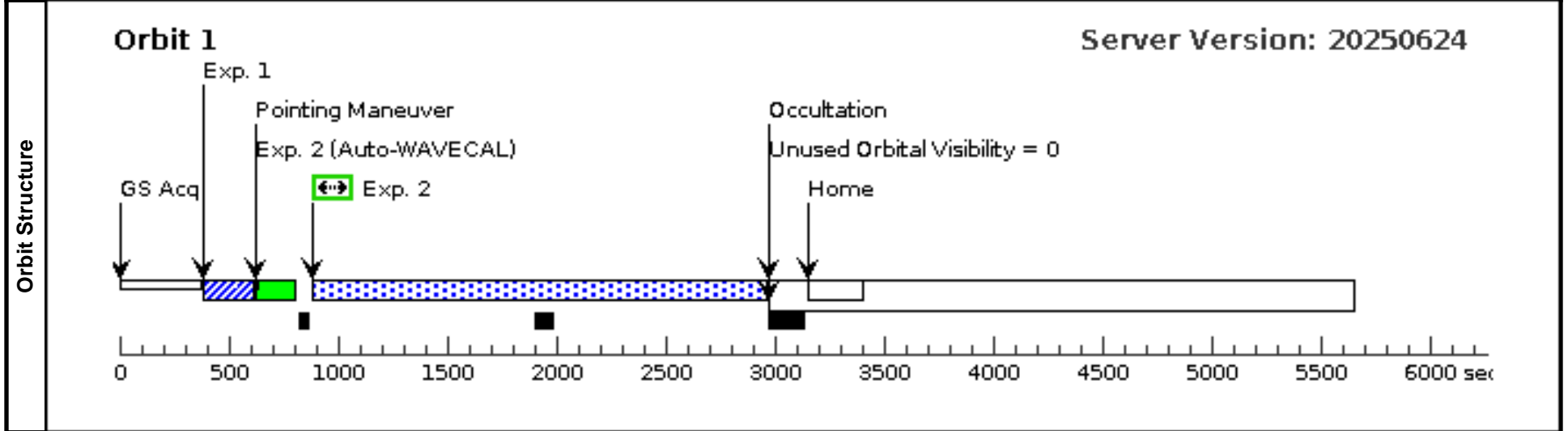
Proposal 18060 - Visit 12 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 12, scheduling				
	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)	WDJ165114.11-143535.30	RA: 16 51 14.1099 (252.8087913d) Dec: -14 35 35.31 (-14.59314d) Equinox: J2000	Proper Motion RA: 49.808 mas/yr Proper Motion Dec: -56.525 mas/yr Parallax: 0.0234867" Epoch of Position: 2000	V=14.86	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4035)	(12) WDJ165114.11-143535.30	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24036)	(12) WDJ165114.11-143535.30	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=98 6			2025 Secs (2025 Secs)	
									[==>]	[1]



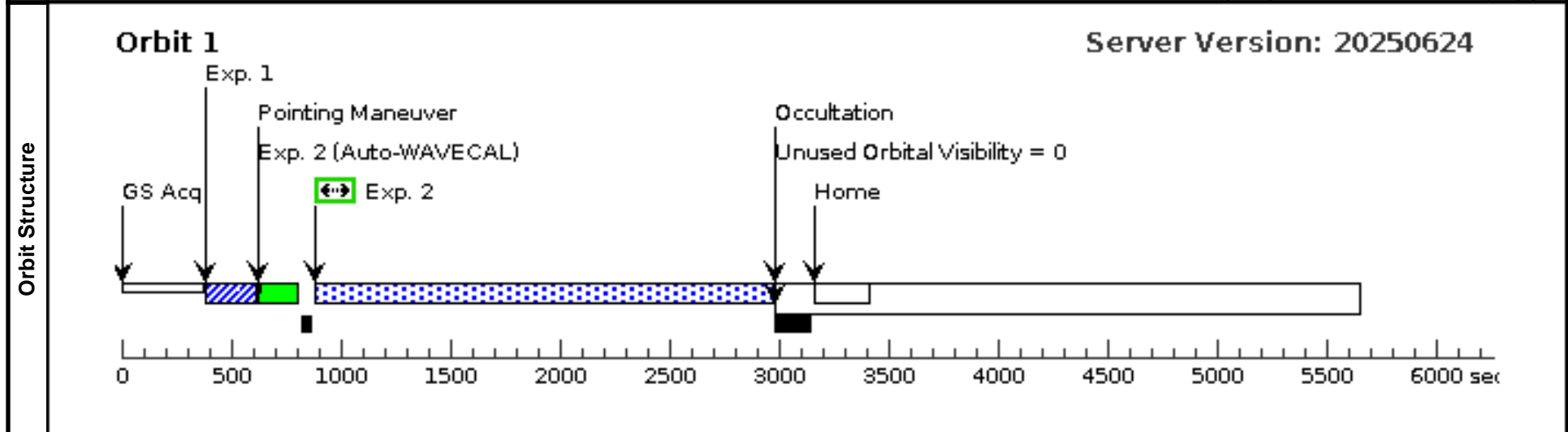
Proposal 18060 - Visit 13 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:20 GMT 2025

Visit	Proposal 18060, Visit 13, scheduling				
	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)	WDJ191144.26-272954.76	RA: 19 11 44.2602 (287.9344175d) Dec: -27 29 54.76 (-27.49854d) Equinox: J2000	Proper Motion RA: 114.814 mas/yr Proper Motion Dec: -100.185 mas/yr Parallax: 0.028872" Epoch of Position: 2000	V=14.68	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4040)	(13) WDJ191144.26-272954.76	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24041)	(13) WDJ191144.26-272954.76	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=11 04			2034 Secs (2034 Secs)	
									[==>]	[1]



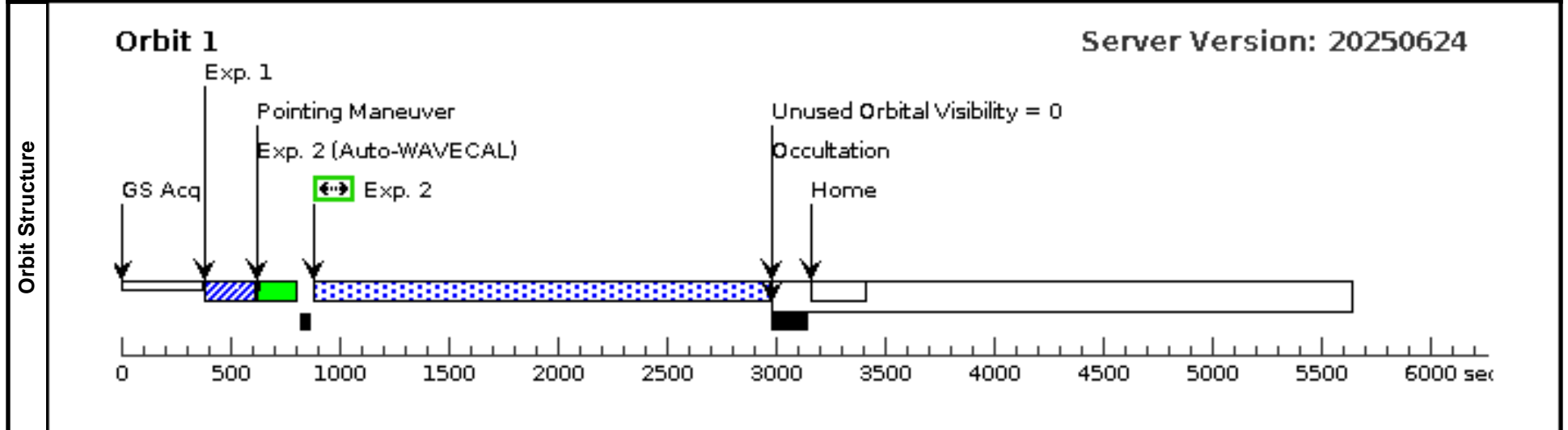
Proposal 18060 - Visit 14 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:21 GMT 2025

Visit	Proposal 18060, Visit 14, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(14)	WDJ204930.79-300502.86	RA: 20 49 30.7939 (312.3783079d) Dec: -30 05 2.86 (-30.08413d) Equinox: J2000	Proper Motion RA: -4.74 mas/yr Proper Motion Dec: -93.237 mas/yr Parallax: 0.0203609" Epoch of Position: 2000	V=15.43	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4044)	(14) WDJ204930.79-300502.86	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[=>]	[1]
	2	(STIS.sp.20 24045)	(14) WDJ204930.79-300502.86	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=11 61			2038 Secs (2038 Secs)	
									[=>]	[1]



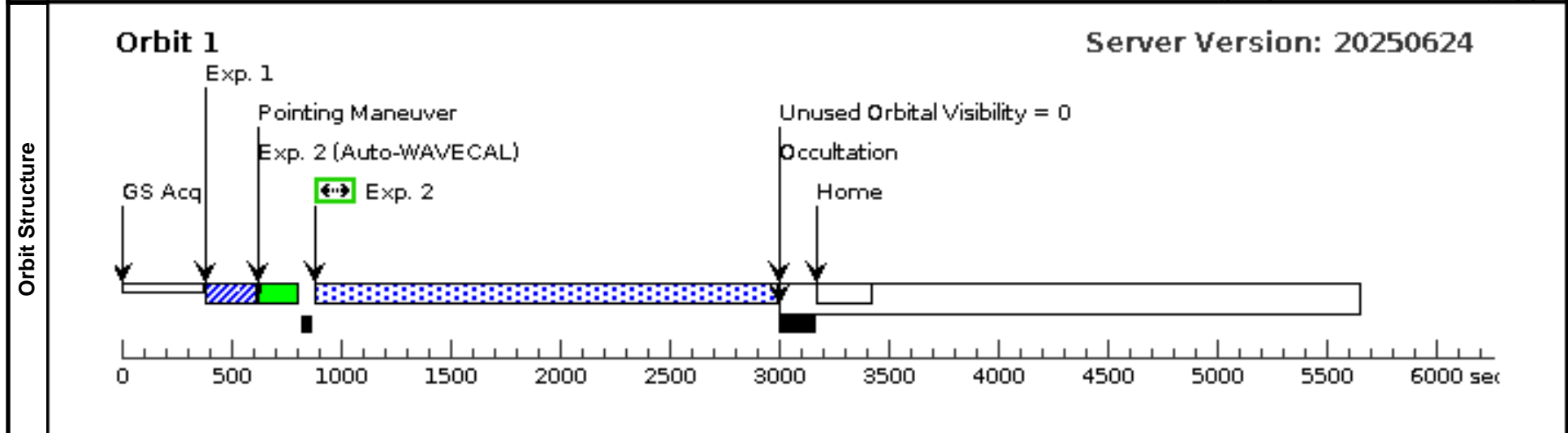
Proposal 18060 - Visit 15 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:21 GMT 2025

Visit	Proposal 18060, Visit 15, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(15)	WDJ210951.16+425705.12	RA: 21 09 51.1591 (317.4631629d) Dec: +42 57 5.12 (42.95142d) Equinox: J2000	Proper Motion RA: 195.751 mas/yr Proper Motion Dec: -17.264 mas/yr Parallax: 0.0176643" Epoch of Position: 2000	V=15.61	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4046)	(15) WDJ210951.16 +425705.12	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24047)	(15) WDJ210951.16 +425705.12	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=11 48			2052 Secs (2052 Secs)	
									[==>]	[1]



Proposal 18060 - Visit 16 - Opening the crucial ultraviolet window on carbon dredge-up in white dwarfs

Wed Oct 29 16:00:21 GMT 2025

Visit	Proposal 18060, Visit 16, scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/CCD, STIS/FUV-MAMA				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(16) 59	WDJ214954.57+281659.59	RA: 21 49 54.5666 (327.4773608d) Dec: +28 16 59.59 (28.28322d) Equinox: J2000	Proper Motion RA: 248.342 mas/yr Proper Motion Dec: -75.827 mas/yr Parallax: 0.028778" Epoch of Position: 2000	V=14.65	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	<i>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.</i>					
	Category=STAR					
	Description=[DB]					

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(STIS.ta.202 4049)	(16) WDJ214954.57 +281659.59	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2	(STIS.sp.20 24050)	(16) WDJ214954.57 +281659.59	STIS/FUV-MAMA, TIME-TAG, 52X2	G140L 1425 A	BUFFER-TIME=10 56			2034 Secs (2034 Secs)	
									[==>]	[1]

