



## 11625 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the weak wind problem in SMC O stars

Cycle: 17, Proposal Category: GO

(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) AZV-388	COS/FUV	1	22-Dec-2009 21:20:31.0	yes
02	(2) AZV-177	COS/FUV	1	22-Dec-2009 21:20:38.0	yes
03	(3) AZV-446	COS/FUV	1	22-Dec-2009 21:20:43.0	yes
04	(4) AZV-429	COS/FUV	1	22-Dec-2009 21:20:51.0	yes
05	(5) CL-NGC-346-MPG-523	COS/FUV	1	22-Dec-2009 21:20:56.0	yes
06	(6) CL-NGC-346-ELS-046	COS/FUV	1	22-Dec-2009 21:21:00.0	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>
07	(9) CL-NGC-346-ELS-031	COS/FUV	1	22-Dec-2009 21:21:04.0	yes
08	(10) AZV-461	COS/FUV	1	22-Dec-2009 21:21:09.0	yes
09	(11) AZV-267	COS/FUV	1	22-Dec-2009 21:21:13.0	yes
10	(12) AZV-148	COS/FUV	1	22-Dec-2009 21:21:18.0	yes
11	(13) AZV-468	COS/FUV	1	22-Dec-2009 21:21:23.0	yes
12	(14) AZV-189	COS/FUV	1	22-Dec-2009 21:21:27.0	yes
13	(15) AZV-326	COS/FUV	1	22-Dec-2009 21:21:33.0	yes
14	(16) CL-NGC-346-MPG-682	COS/FUV	1	22-Dec-2009 21:21:37.0	yes
15	(18) AZV-243	COS/FUV	1	22-Dec-2009 21:21:41.0	yes
16	(19) AZV-77	COS/FUV	1	22-Dec-2009 21:21:46.0	yes
17	(27) CL-NGC-346-MPG-299	COS/FUV	1	22-Dec-2009 21:21:50.0	yes
18	(21) SK-190	COS/FUV	1	22-Dec-2009 21:21:54.0	yes
19	(26) AZV-261	COS/FUV	1	22-Dec-2009 21:21:58.0	yes
20	(23) AZV-43	COS/FUV	1	22-Dec-2009 21:22:02.0	yes
21	(24) AZV-307	COS/FUV	1	22-Dec-2009 21:22:09.0	yes
22	(25) AZV-439	COS/FUV	1	22-Dec-2009 21:22:13.0	yes
50	(23) AZV-43	COS/FUV	1	22-Dec-2009 21:22:17.0	yes

23 Total Orbits Used

## ABSTRACT

SMC O stars provide an unrivaled opportunity to probe star formation, evolution, and the feedback of massive stars in an environment similar to the epoch of the peak in star formation history. Two recent breakthroughs in the study of hot, massive stars have important consequences for

understanding the chemical enrichment and buildup of stellar mass in the Universe. The first is the realization that rotation plays a major role in influencing the evolution of massive stars and their feedback on the surrounding environment. The second is a drastic downward revision of the mass loss rates of massive stars coming from an improved description of their winds. STIS spectroscopy of SMC O stars combined with state-of-the-art NLTE analyses has shed new light on these two topics. A majority of SMC O stars reveal CNO-cycle processed material brought at their surface by rotational mixing. Secondly, the FUV wind lines of early O stars provide strong indications of the clumped nature of their wind. Moreover, we first drew attention to some late-O dwarfs showing extremely weak wind signatures. Consequently, we have derived mass loss rates from STIS spectroscopy that are significantly lower than the current theoretical predictions used in evolutionary models. Because of the limited size of the current sample (and some clear bias toward stars with sharp-lined spectra), these results must however be viewed as tentative. Thanks to the high efficiency of COS in the FUV range, we propose now to obtain high-resolution FUV spectra with COS of a larger sample of SMC O stars to study systematically rotation and wind properties of massive stars at low metallicity. The analysis of the FUV wind lines will be based on our 2D extension of CMFGEN to model axi-symmetric rotating winds.

## **OBSERVING DESCRIPTION**

We propose to obtain high-resolution ( $R=20,000$ ) COS FUV spectra of 22 O stars in the SMC. We request to observe each target in a sequence of 4 science exposures with COS, using gratings G130M ( 1291, 1327) and G160M ( 1577, 1623). This sequence provides full coverage without gap of the FUV spectrum between 1132 and 1798?. Overlapping segments will be co-added to improve the final SNR. Thanks to the high efficiency of COS in the FUV, we will achieve a sufficient SNR, typically SNR  $\geq 30$  per resolution element, in a single HST orbit for each target. Target acquisition should be carried out in the same mode (dispersed FUV mode) with an ACQ/SEARCH followed by the peak-up procedure. Each visit is constructed in the same way, with no special requirements but limited ORIENT range for 4 stars for increased instrument safety (see below).

Using COS Exposure Time Calculator, we have estimated count rates for each star and each grating configuration. We have used Castelli-Kurucz model atmospheres with the closest spectral type, normalized to V magnitudes. Photometry was extracted from Massey's UBVR CCD survey of the Magellanic Clouds (2002, ApJS, 141, 81) or from Evans et al. (2006, AA, 456, 623) for stars in NGC 346. We derived color excesses,  $E(B-V)$ , and applied a SMC extinction law. Two stars, AV 372 and AV 135 (G130M only) have total count rates for the two channels between 25,000 and 30,000 c/s. We have selected the ACCUM mode in these cases. All other stars can be observed in the TTAG mode. Maximum total counts (both channels)

are 18,000 c/s in G130M and 15,000 c/s in G160M, with a maximum count rate of 11,000 c/s in channel B. About half the stars exceed the 6,000 c/s limit in channel B; however, these stars are not known or expected to exhibit large or irregular variations. Buffer times have been estimated for each single TTAG observation ( $2/3$  of the ETC values). Finally, the maximum local count per pixel is always a factor of 2 (G130M) or of 3 to 10 (G160M) lower than the limit.

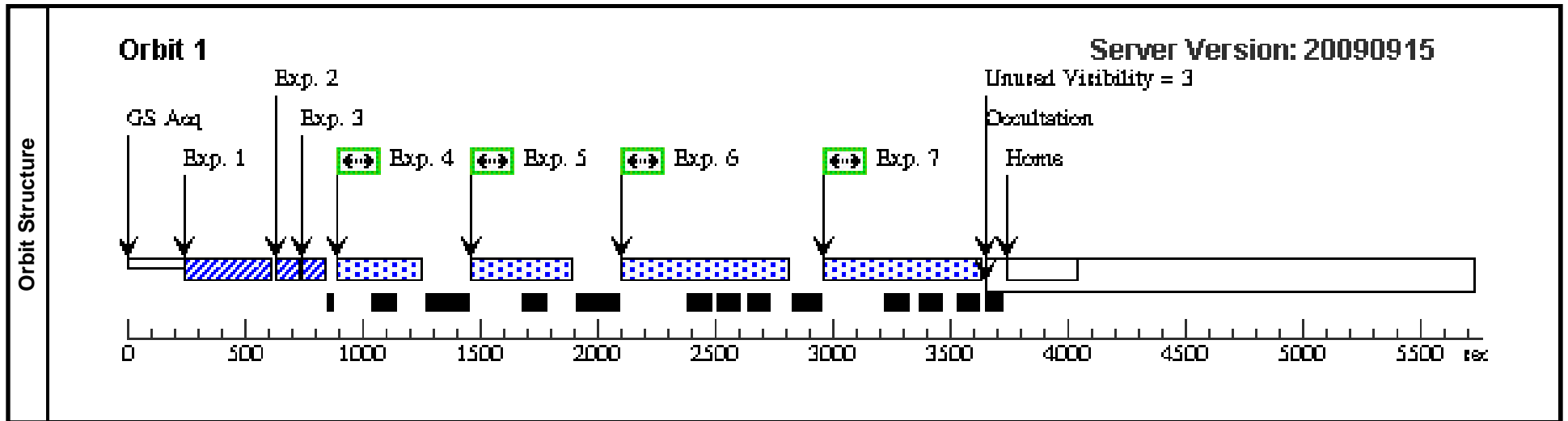
FOS or STIS/G140L fluxes are available for a few targets. We derive total count rates that are 10 to 30% higher than from the V magnitude normalization. Higher count rates stem from using solar metallicity model atmospheres (metal-poor SMC stars have bluer spectra) and uncertainties in the extinction law (we used the SMC law, while we have both a contribution from the Galactic foreground and SMC). Count rates have a safety margin of 75% (G130M) or of a factor of 2 (G160M); even if the count rates with normalization at V are systematically underestimated by 20-30%, we keep a sufficient safety margin. Possibly, some counts may be lost in the TTAG mode for the brightest targets, but this would be of limited consequence for the final SNR.

Finally, we run the BOT tool for all targets and inspect the stellar fields with Aladin. There are no bright stars at proximity of our targets that may be a safety concern for COS. For 3 stars in NGC 346 and AV 267, there is relatively bright but unknown stars at the edge of the BOA area. For increased safety, we have thus limited the range of ORIENT to avoid the risk of these stars falling in the BOA during the acquisition procedure.

Proposal 11625 - Visit 01 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

Wed Dec 23 02:22:21 GMT 2009

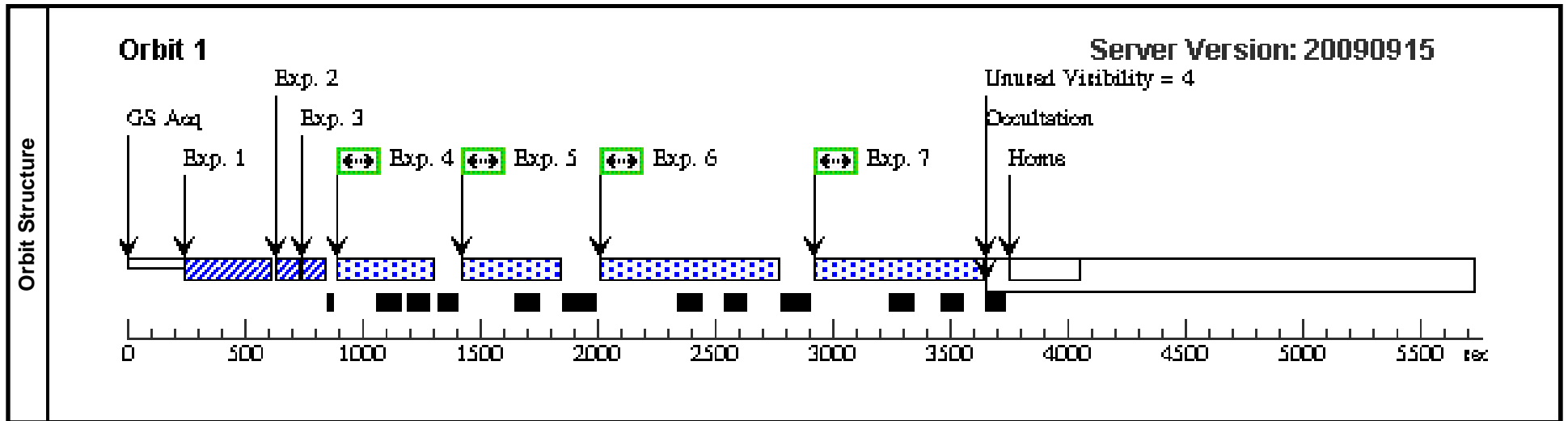
Visit	<b>Proposal 11625, Visit 01, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	AZV-388	RA: 01 05 39.4500 (16.4143750d) Dec: -72 29 26.80 (-72.49078d) Equinox: J2000		V=14.12+/-0.02 E(B-V)=0.08	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) AZV-388	COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.1 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2		(1) AZV-388	COS/FUV, ACQ/PEAKXD, PSA	G130M				0.1 Secs	
					1291 A				[==>]	[1]
	3		(1) AZV-388	COS/FUV, ACQ/PEAKD, PSA	G130M		STEP-SIZE=1.2;		0.1 Secs	
				1291 A		CENTER=DEF;		[==>]	[1]	
						NUM-POS=3				
4		(1) AZV-388	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=11		312.0 Secs		
				1291 A		1;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
5		(1) AZV-388	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=11		311.0 Secs		
				1327 A		1;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
6		(1) AZV-388	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=13		548.0 Secs		
				1577 A		0;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
7		(1) AZV-388	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=15		548.0 Secs		
				1623 A		2;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				



Proposal 11625 - Visit 02 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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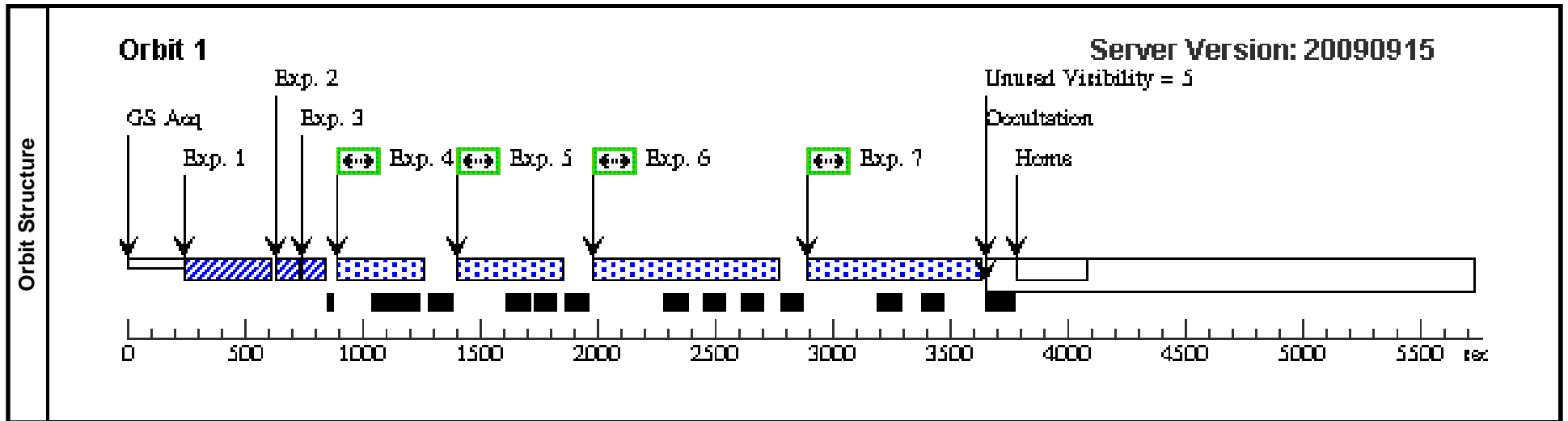
Visit	<b>Proposal 11625, Visit 02, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	AZV-177	RA: 00 56 44.1700 (14.1840417d) Dec: -72 03 31.30 (-72.05869d) Equinox: J2000		V=14.53+/-0.02 E(B-V)=0.08	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(2) AZV-177		COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2	(2) AZV-177		COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3	(2) AZV-177		COS/FUV, ACQ/PEAKD, PSA	G130M		STEP-SIZE=1.2;			0.2 Secs
				1291 A		CENTER=DEF;			[==>]	[1]
						NUM-POS=3				
4	(2) AZV-177		COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=13			360.0 Secs	
				1291 A		0;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
5	(2) AZV-177		COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=12			300.0 Secs	
				1327 A		8;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
6	(2) AZV-177		COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=19			595.0 Secs	
				1577 A		1;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
7	(2) AZV-177		COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=22			595.0 Secs	
				1623 A		1;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				



Proposal 11625 - Visit 03 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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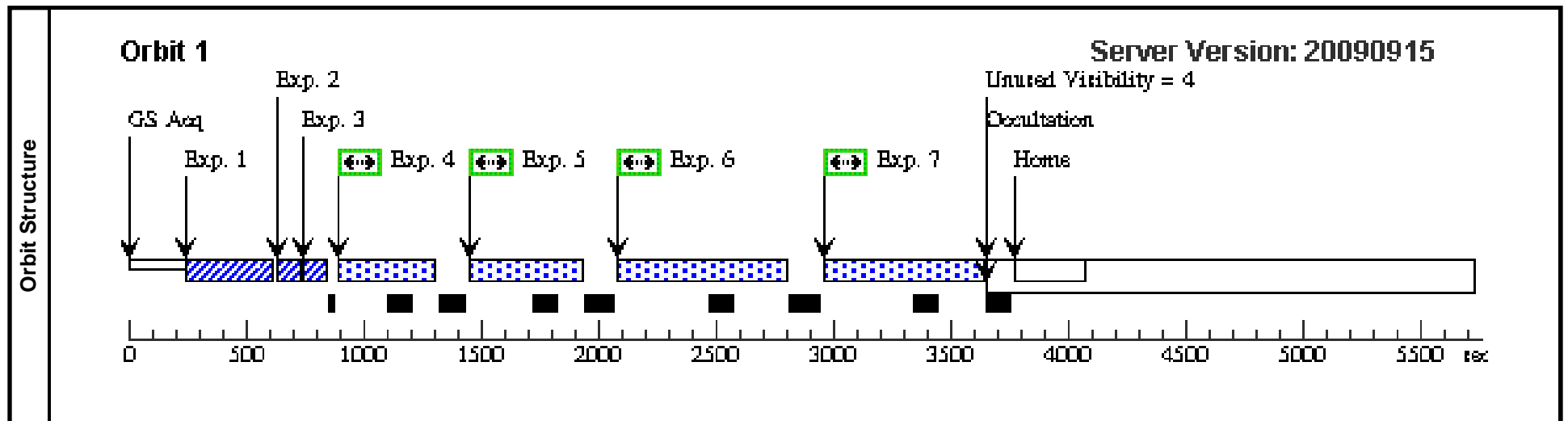
Visit	<b>Proposal 11625, Visit 03, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	AZV-446	RA: 01 09 25.4600 (17.3560833d) Dec: -73 09 29.70 (-73.15825d) Equinox: J2000		V=14.59+/-0.02 E(B-V)=0.04	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(3) AZV-446		COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.2 Secs [==>]	[1]
	2	(3) AZV-446		COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.2 Secs [==>]	[1]
	3	(3) AZV-446		COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.2 Secs [==>]	[1]
	4	(3) AZV-446		COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			323.0 Secs [==>]	[1]
	5	(3) AZV-446		COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			323.0 Secs [==>]	[1]
	6	(3) AZV-446		COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=16 4; EXTENDED=NO; FLASH=YES; FP-POS=3			630.0 Secs [==>]	[1]
	7	(3) AZV-446		COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=19 3; EXTENDED=NO; FLASH=YES; FP-POS=3			620.0 Secs [==>]	[1]



Proposal 11625 - Visit 04 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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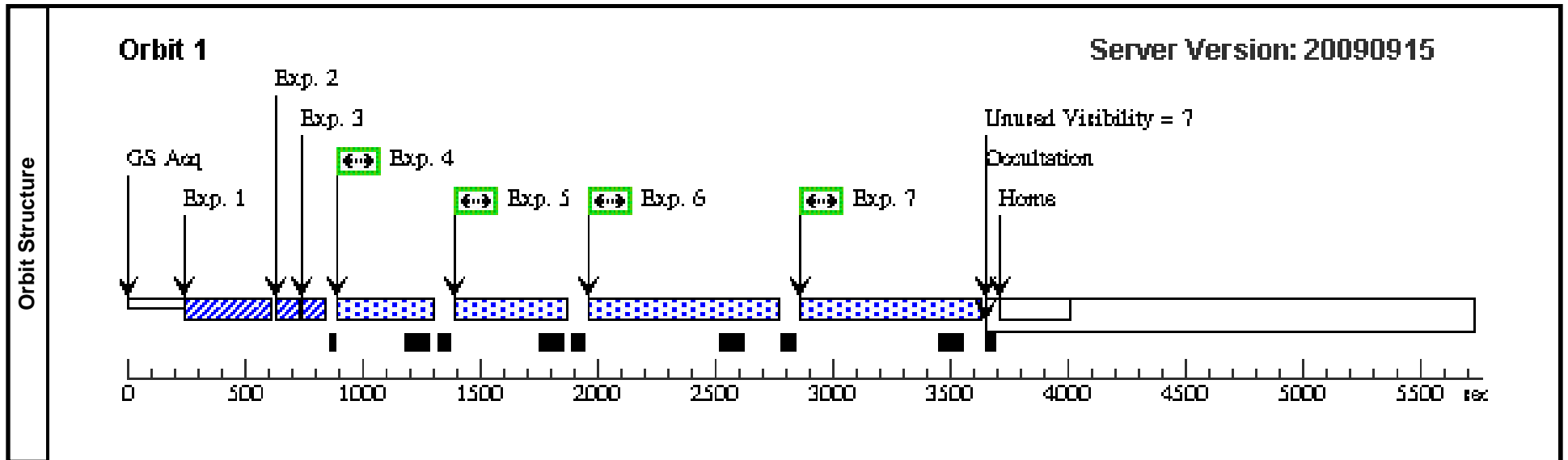
Visit	<b>Proposal 11625, Visit 04, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(4)	AZV-429	RA: 01 07 59.8700 (16.9994583d) Dec: -72 00 53.90 (-72.01497d) Equinox: J2000		V=14.63+/-0.02 E(B-V)=0.08	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) AZV-429	COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2		(4) AZV-429	COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3		(4) AZV-429	COS/FUV, ACQ/PEAKD, PSA	G130M		STEP-SIZE=1.2;			0.2 Secs
				1291 A		CENTER=DEF;			[==>]	[1]
						NUM-POS=3				
4		(4) AZV-429	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=17			360.0 Secs	
				1291 A		1;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
5		(4) AZV-429	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=16			360.0 Secs	
				1327 A		7;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
6		(4) AZV-429	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=24			555.0 Secs	
				1577 A		3;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
7		(4) AZV-429	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=28			555.0 Secs	
				1623 A		0;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				



Proposal 11625 - Visit 05 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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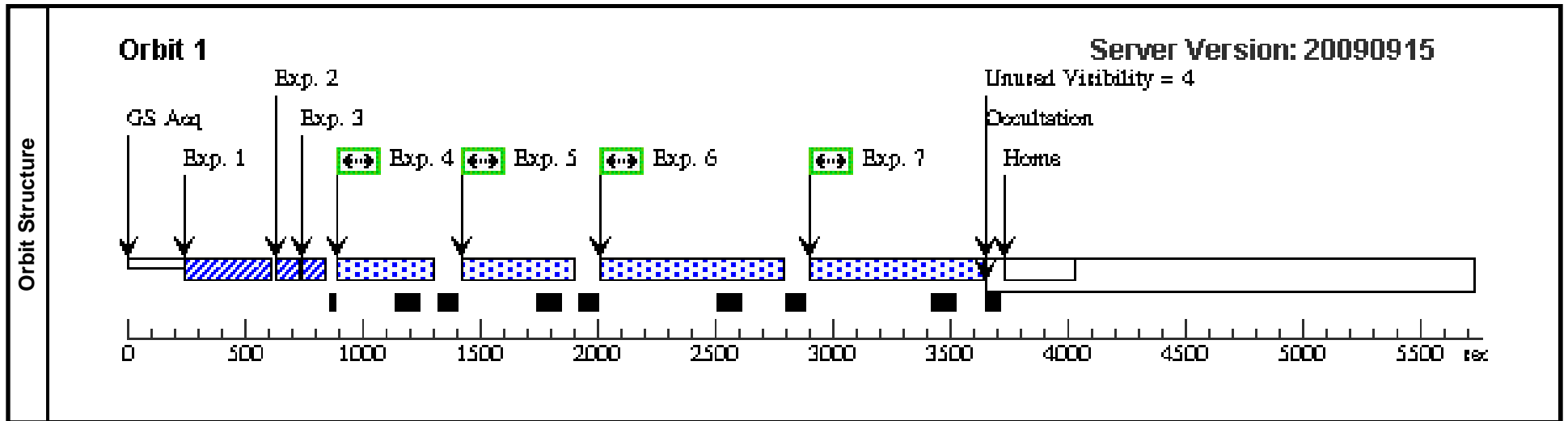
Visit	<b>Proposal 11625, Visit 05, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: ORIENT 30D TO 120 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(5)	CL-NGC-346-MPG-523	RA: 00 59 8.6600 (14.7860833d) Dec: -72 10 14.20 (-72.17061d) Equinox: J2000		V=15.51+/-0.02 E(B-V)=0.05	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(5) CL-NGC-346-M PG-523	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T				0.3 Secs [==>]	[1]
	2	(5) CL-NGC-346-M PG-523	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A					0.3 Secs [==>]	[1]
	3	(5) CL-NGC-346-M PG-523	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3				0.3 Secs [==>]	[1]
	4	(5) CL-NGC-346-M PG-523	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=25 7; EXTENDED=NO; FLASH=YES; FP-POS=3				360.0 Secs [==>]	[1]
	5	(5) CL-NGC-346-M PG-523	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=25 5; EXTENDED=NO; FLASH=YES; FP-POS=3				360.0 Secs [==>]	[1]
	6	(5) CL-NGC-346-M PG-523	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=41 7; EXTENDED=NO; FLASH=YES; FP-POS=3				648.0 Secs [==>]	[1]
	7	(5) CL-NGC-346-M PG-523	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=48 7; EXTENDED=NO; FLASH=YES; FP-POS=3				648.0 Secs [==>]	[1]



Proposal 11625 - Visit 06 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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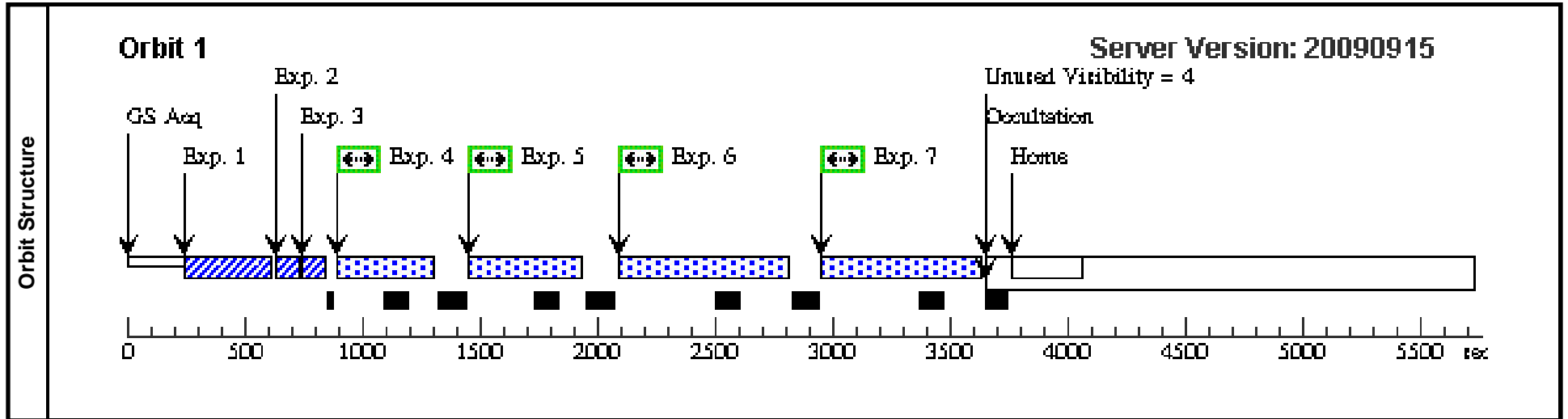
Visit	<b>Proposal 11625, Visit 06, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: ORIENT 70D TO 160 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(6)	CL-NGC-346-ELS-046	RA: 00 59 31.8400 (14.8826667d) Dec: -72 13 35.20 (-72.22644d) Equinox: J2000		V=15.44+/-0.02 E(B-V)=0.04	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(6) CL-NGC-346-EL S-046	(6) CL-NGC-346-EL S-046	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.3 Secs [==>]	[1]
	2	(6) CL-NGC-346-EL S-046	(6) CL-NGC-346-EL S-046	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.3 Secs [==>]	[1]
	3	(6) CL-NGC-346-EL S-046	(6) CL-NGC-346-EL S-046	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.3 Secs [==>]	[1]
	4	(6) CL-NGC-346-EL S-046	(6) CL-NGC-346-EL S-046	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=21 5; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	5	(6) CL-NGC-346-EL S-046	(6) CL-NGC-346-EL S-046	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=21 5; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	6	(6) CL-NGC-346-EL S-046	(6) CL-NGC-346-EL S-046	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=35 7; EXTENDED=NO; FLASH=YES; FP-POS=3			612.0 Secs [==>]	[1]
7	(6) CL-NGC-346-EL S-046	(6) CL-NGC-346-EL S-046	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=42 0; EXTENDED=NO; FLASH=YES; FP-POS=3			612.0 Secs [==>]	[1]	



Proposal 11625 - Visit 07 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

Wed Dec 23 02:22:23 GMT 2009

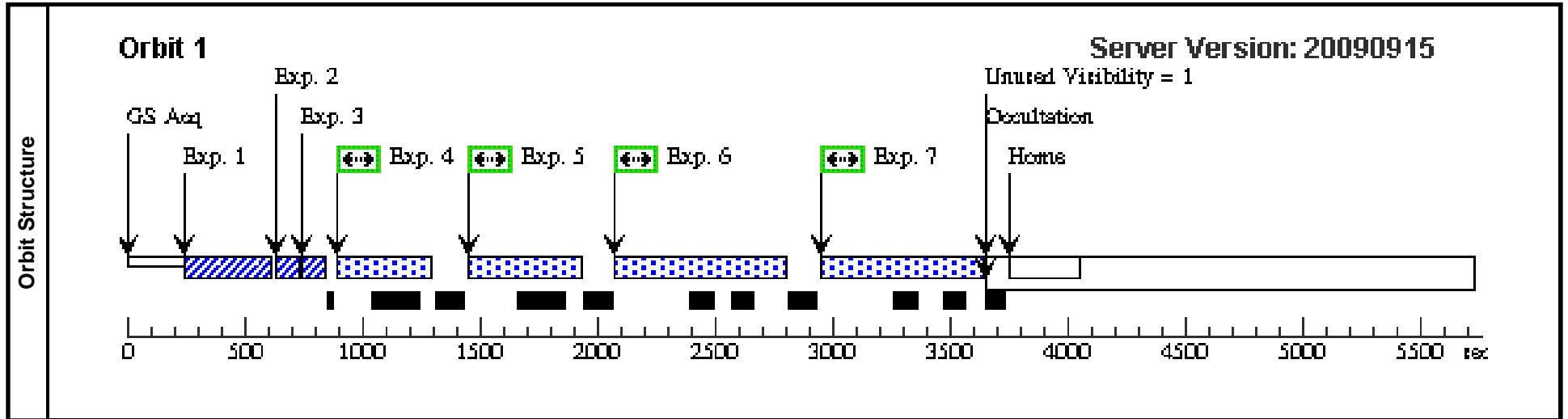
Visit	<b>Proposal 11625, Visit 07, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(9)	CL-NGC-346-ELS-031	RA: 00 59 54.0400 (14.9751667d) Dec: -72 04 31.30 (-72.07536d) Equinox: J2000		V=15.02+/-0.02 E(B-V)=0.05	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) CL-NGC-346-EL S-031	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.2 Secs [==>]	[1]
	2		(9) CL-NGC-346-EL S-031	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.2 Secs [==>]	[1]
	3		(9) CL-NGC-346-EL S-031	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.2 Secs [==>]	[1]
	4		(9) CL-NGC-346-EL S-031	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=16 8; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	5		(9) CL-NGC-346-EL S-031	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=16 7; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	6		(9) CL-NGC-346-EL S-031	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=26 6; EXTENDED=NO; FLASH=YES; FP-POS=3			560.0 Secs [==>]	[1]
7		(9) CL-NGC-346-EL S-031	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=31 1; EXTENDED=NO; FLASH=YES; FP-POS=3			560.0 Secs [==>]	[1]	



Proposal 11625 - Visit 08 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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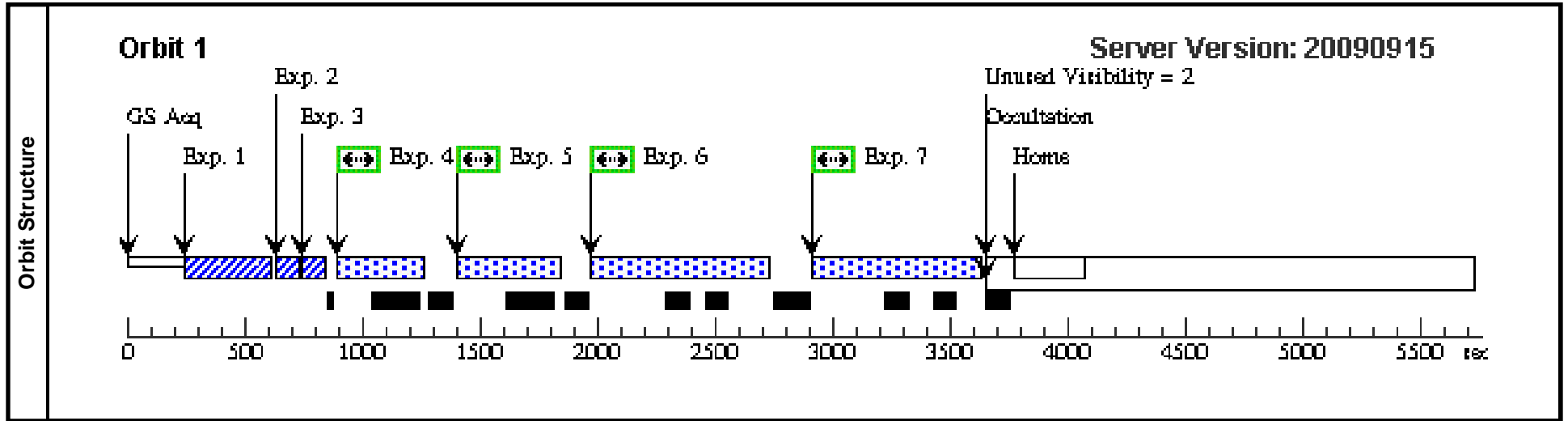
Visit	<b>Proposal 11625, Visit 08, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(10)	AZV-461	RA: 01 11 25.5300 (17.8563750d) Dec: -72 09 48.50 (-72.16347d) Equinox: J2000		V=14.57+/-0.02 E(B-V)=0.05	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(10) AZV-461	COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2		(10) AZV-461	COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3		(10) AZV-461	COS/FUV, ACQ/PEAKD, PSA	G130M		STEP-SIZE=1.2;			0.2 Secs
				1291 A		CENTER=DEF;			[==>]	[1]
						NUM-POS=3				
4		(10) AZV-461	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=11			352.0 Secs	
				1291 A		3;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
5		(10) AZV-461	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=11			352.0 Secs	
				1327 A		1;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
6		(10) AZV-461	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=17			565.0 Secs	
				1577 A		6;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
7		(10) AZV-461	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=20			565.0 Secs	
				1623 A		5;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				



Proposal 11625 - Visit 09 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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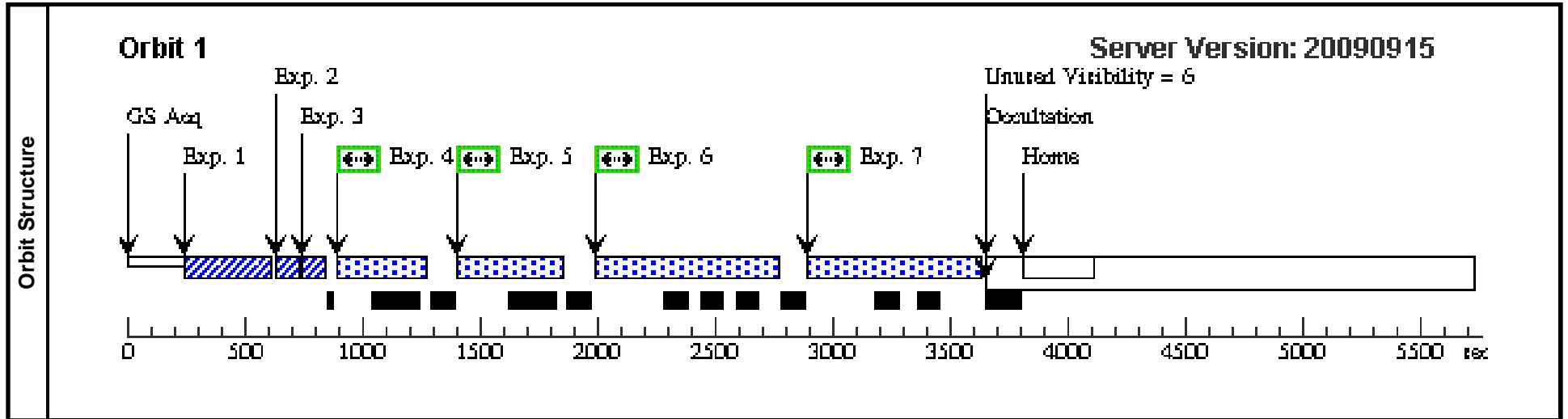
Visit	<b>Proposal 11625, Visit 09, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: ORIENT 270D TO 360.0 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(11)	AZV-267	RA: 01 01 15.6800 (15.3153333d) Dec: -72 06 35.40 (-72.10983d) Equinox: J2000		V=14.84+/-0.02 E(B-V)=0.02	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(11) AZV-267	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.2 Secs [==>]	[1]
	2		(11) AZV-267	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.2 Secs [==>]	[1]
	3		(11) AZV-267	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.2 Secs [==>]	[1]
	4		(11) AZV-267	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			321.0 Secs [==>]	[1]
	5		(11) AZV-267	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			321.0 Secs [==>]	[1]
	6		(11) AZV-267	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=17 2; EXTENDED=NO; FLASH=YES; FP-POS=3			600.0 Secs [==>]	[1]
	7		(11) AZV-267	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=20 4; EXTENDED=NO; FLASH=YES; FP-POS=3			600.0 Secs [==>]	[1]



Proposal 11625 - Visit 10 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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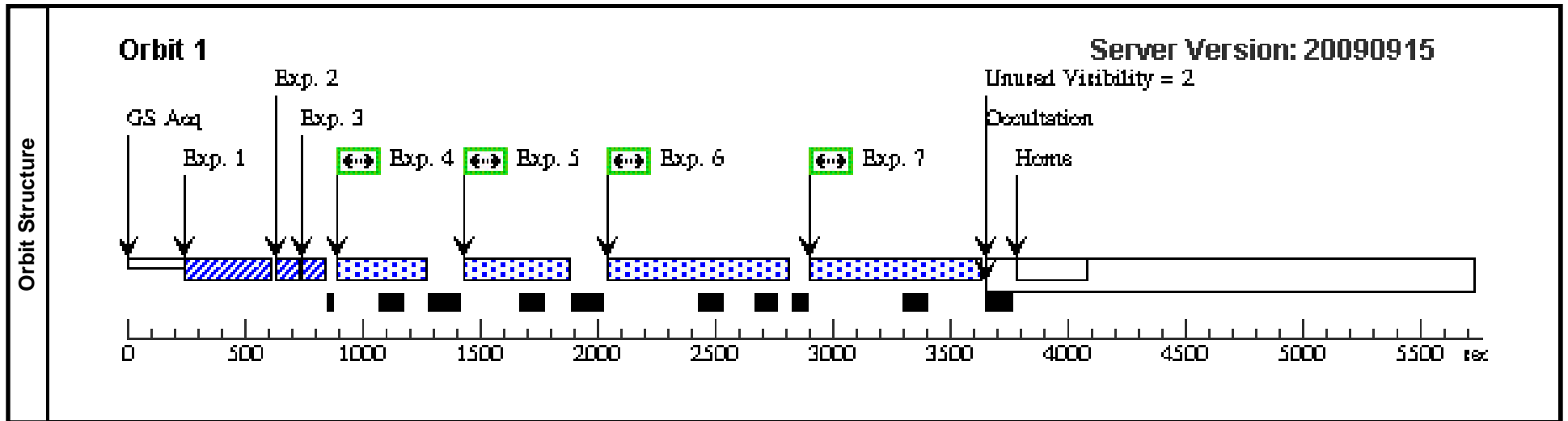
Visit	<b>Proposal 11625, Visit 10, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(12)	AZV-148	RA: 00 53 42.1900 (13.4257917d) Dec: -72 42 35.20 (-72.70978d) Equinox: J2000		V=14.12+/-0.02 E(B-V)=0.07	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(12) AZV-148		COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2	(12) AZV-148		COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3	(12) AZV-148		COS/FUV, ACQ/PEAKD, PSA	G130M	STEP-SIZE=1.2;			0.2 Secs	
				1291 A	CENTER=DEF;			[==>]	[1]	
						NUM-POS=3				
4	(12) AZV-148		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=11			329.0 Secs		
				1291 A	1;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
5	(12) AZV-148		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=11			327.0 Secs		
				1327 A	1;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
6	(12) AZV-148		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=15			615.0 Secs		
				1577 A	4;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
7	(12) AZV-148		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=17			615.0 Secs		
				1623 A	8;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					



Proposal 11625 - Visit 11 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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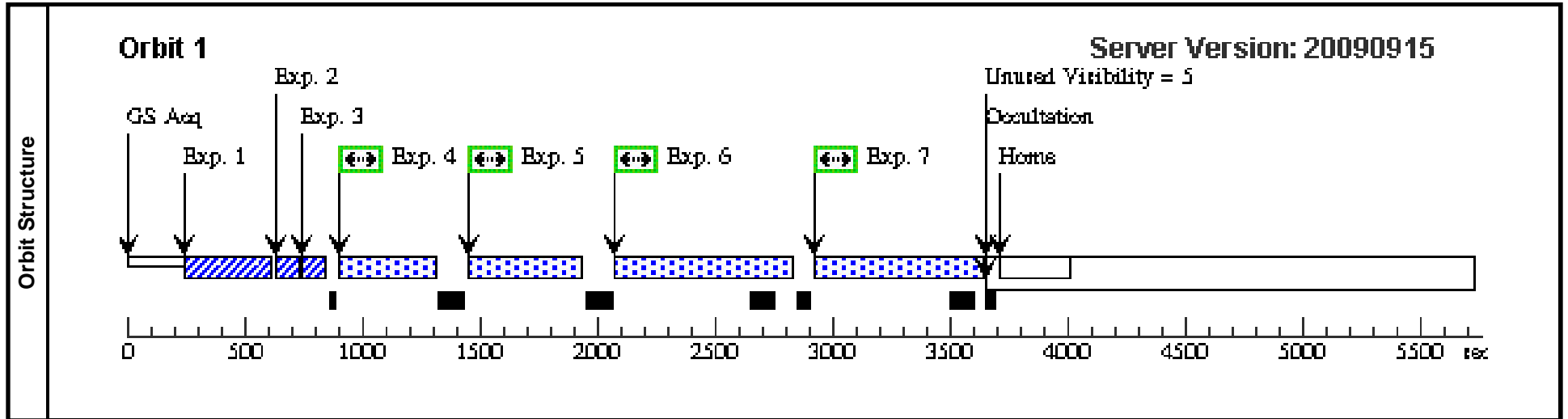
Visit	<b>Proposal 11625, Visit 11, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(13)	AZV-468	RA: 01 12 5.8200 (18.0242500d) Dec: -72 40 56.20 (-72.68228d) Equinox: J2000		V=15.11+/-0.02 E(B-V)=0.02	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(13) AZV-468		COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2	(13) AZV-468		COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3	(13) AZV-468		COS/FUV, ACQ/PEAKD, PSA	G130M	STEP-SIZE=1.2;			0.2 Secs	
				1291 A	CENTER=DEF;			[==>]	[1]	
						NUM-POS=3				
4	(13) AZV-468		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=14			325.0 Secs		
				1291 A	1;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
5	(13) AZV-468		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=14			325.0 Secs		
				1327 A	1;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
6	(13) AZV-468		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=24			610.0 Secs		
				1577 A	5;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
7	(13) AZV-468		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=28			610.0 Secs		
				1623 A	9;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					



Proposal 11625 - Visit 12 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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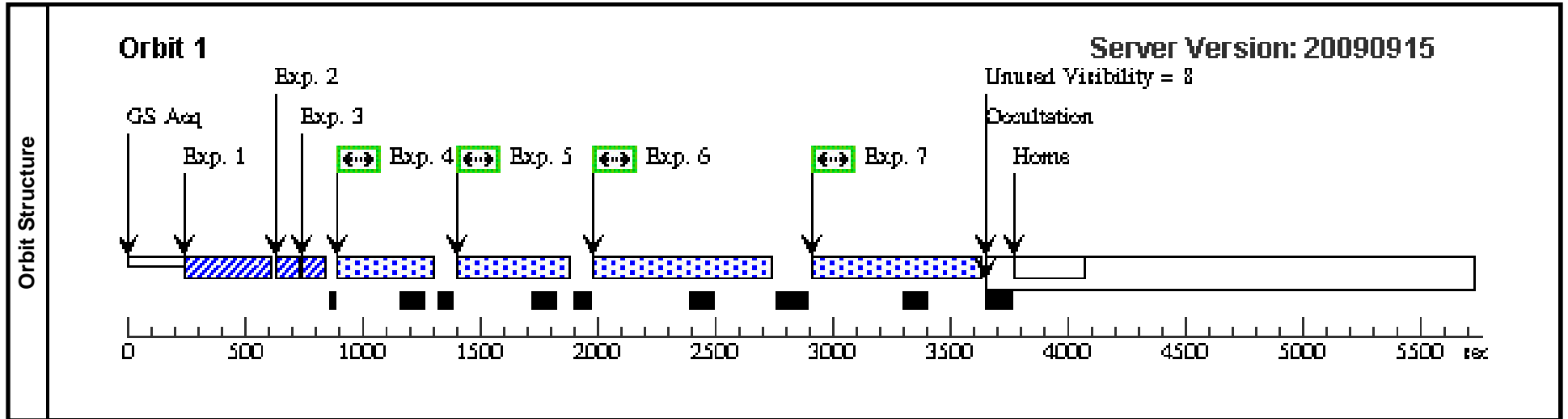
Visit	<b>Proposal 11625, Visit 12, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(14)	AZV-189	RA: 00 57 32.5780 (14.3857417d) Dec: -72 28 50.27 (-72.48063d) Equinox: J2000		V=14.37+/-0.02 E(B-V)=0.16	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(14) AZV-189		COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.5 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2	(14) AZV-189		COS/FUV, ACQ/PEAKXD, PSA	G130M				0.5 Secs	
					1291 A				[==>]	[1]
	3	(14) AZV-189		COS/FUV, ACQ/PEAKD, PSA	G130M		STEP-SIZE=1.2;		0.5 Secs	
				1291 A		CENTER=DEF;		[==>]	[1]	
						NUM-POS=3				
4	(14) AZV-189		COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=34		360.0 Secs		
				1291 A		0;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
5	(14) AZV-189		COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=34		360.0 Secs		
				1327 A		0;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
6	(14) AZV-189		COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=43		595.0 Secs		
				1577 A		0;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
7	(14) AZV-189		COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=47		595.0 Secs		
				1623 A		8;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				



Proposal 11625 - Visit 13 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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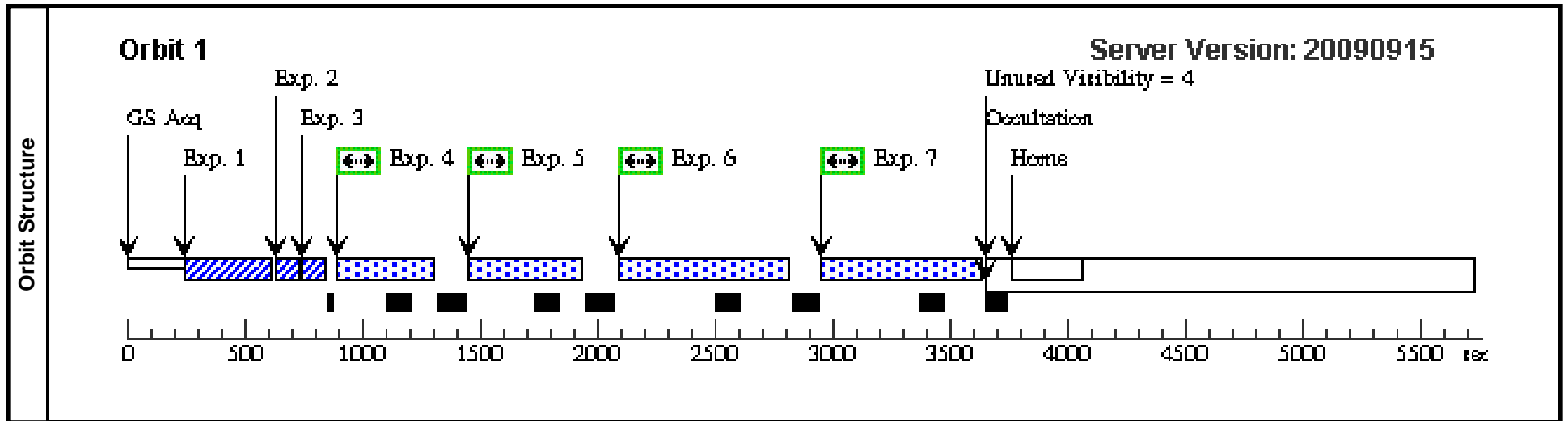
Visit	<b>Proposal 11625, Visit 13, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(15)	AZV-326	RA: 01 03 9.2600 (15.7885833d) Dec: -72 25 56.50 (-72.43236d) Equinox: J2000		V=13.92+/-0.02 E(B-V)=0.15	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(15) AZV-326		COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.3 Secs [==>]	[1]
	2	(15) AZV-326		COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.3 Secs [==>]	[1]
	3	(15) AZV-326		COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.3 Secs [==>]	[1]
	4	(15) AZV-326		COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=23 3; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	5	(15) AZV-326		COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=22 2; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	6	(15) AZV-326		COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=26 1; EXTENDED=NO; FLASH=YES; FP-POS=3			600.0 Secs [==>]	[1]
	7	(15) AZV-326		COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=29 1; EXTENDED=NO; FLASH=YES; FP-POS=3			600.0 Secs [==>]	[1]



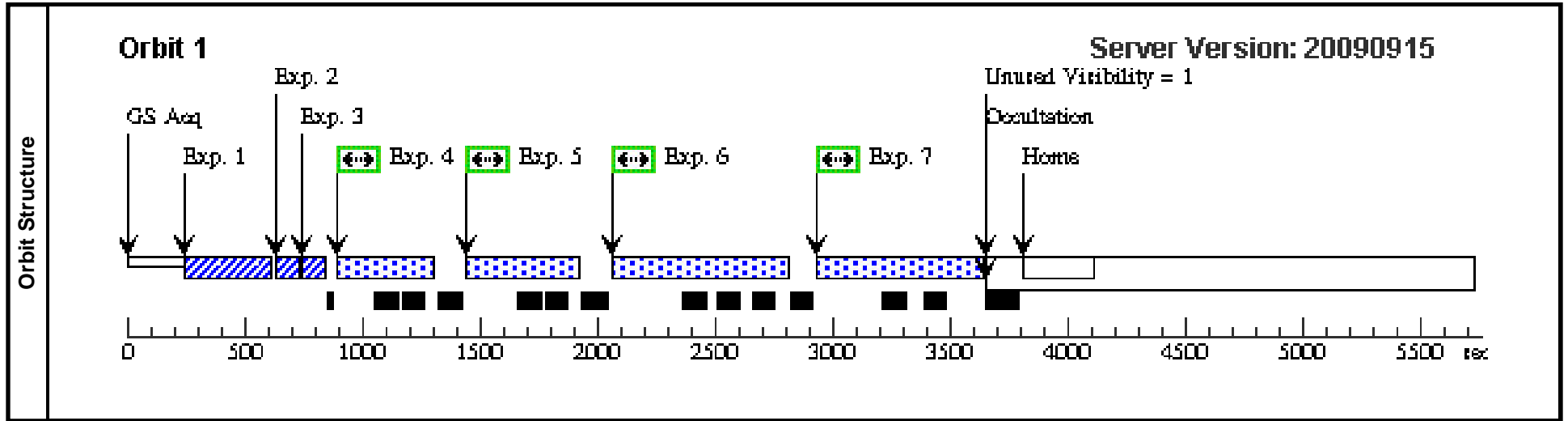
Proposal 11625 - Visit 14 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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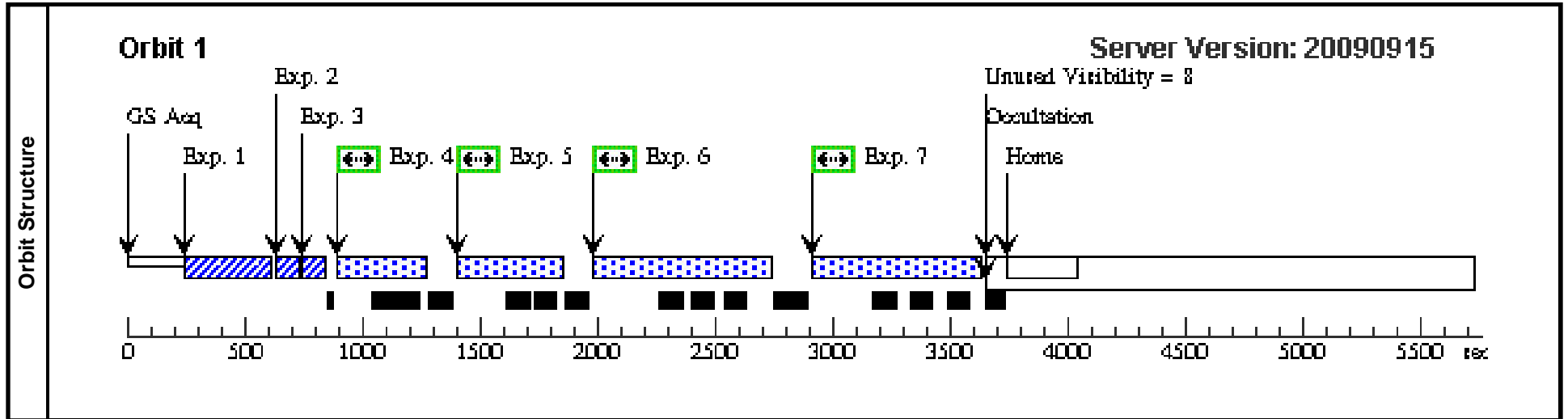
Visit	<b>Proposal 11625, Visit 14, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: ORIENT 0.0D TO 120 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(16)	CL-NGC-346-MPG-682	RA: 00 59 18.6300 (14.8276250d) Dec: -72 11 10.00 (-72.18611d) Equinox: J2000		V=14.91+/-0.02 E(B-V)=0.05	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(16) CL-NGC-346-MPG-682	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T				0.2 Secs [==>]	[1]
	2	(16) CL-NGC-346-MPG-682	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A					0.2 Secs [==>]	[1]
	3	(16) CL-NGC-346-MPG-682	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3				0.2 Secs [==>]	[1]
	4	(16) CL-NGC-346-MPG-682	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=17 0; EXTENDED=NO; FLASH=YES; FP-POS=3				360.0 Secs [==>]	[1]
	5	(16) CL-NGC-346-MPG-682	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=16 8; EXTENDED=NO; FLASH=YES; FP-POS=3				360.0 Secs [==>]	[1]
	6	(16) CL-NGC-346-MPG-682	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=26 6; EXTENDED=NO; FLASH=YES; FP-POS=3				560.0 Secs [==>]	[1]
	7	(16) CL-NGC-346-MPG-682	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=31 0; EXTENDED=NO; FLASH=YES; FP-POS=3				560.0 Secs [==>]	[1]



Visit	<b>Proposal 11625, Visit 15, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(18)	AZV-243	RA: 01 00 6.7800 (15.0282500d) Dec: -72 47 18.70 (-72.78853d) Equinox: J2000		V=13.84+/-0.02 E(B-V)=0.11	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(18) AZV-243		COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2	(18) AZV-243		COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3	(18) AZV-243		COS/FUV, ACQ/PEAKD, PSA	G130M	STEP-SIZE=1.2;			0.2 Secs	
				1291 A	CENTER=DEF;			[==>]	[1]	
						NUM-POS=3				
4	(18) AZV-243		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=12			360.0 Secs		
				1291 A	1;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
5	(18) AZV-243		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=11			360.0 Secs		
				1327 A	7;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
6	(18) AZV-243		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=15			585.0 Secs		
				1577 A	3;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
7	(18) AZV-243		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=17			585.0 Secs		
				1623 A	5;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					



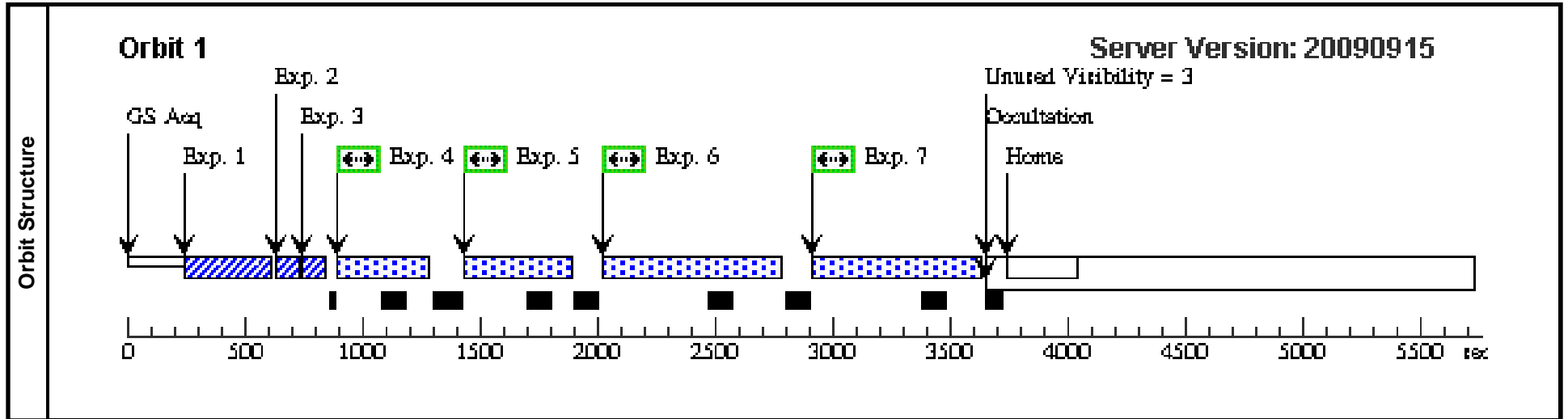
Visit	<b>Proposal 11625, Visit 16, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: ORIENT 150D TO 330 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(19)	AZV-77	RA: 00 50 33.5000 (12.6395833d) Dec: -72 47 44.50 (-72.79569d) Equinox: J2000		V=13.92+/-0.02 E(B-V)=0.09	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(19) AZV-77		COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.2 Secs [==>]	[1]
	2	(19) AZV-77		COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.2 Secs [==>]	[1]
	3	(19) AZV-77		COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.2 Secs [==>]	[1]
	4	(19) AZV-77		COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			324.0 Secs [==>]	[1]
	5	(19) AZV-77		COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			322.0 Secs [==>]	[1]
	6	(19) AZV-77		COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=13 8; EXTENDED=NO; FLASH=YES; FP-POS=3			600.0 Secs [==>]	[1]
	7	(19) AZV-77		COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=15 9; EXTENDED=NO; FLASH=YES; FP-POS=3			600.0 Secs [==>]	[1]



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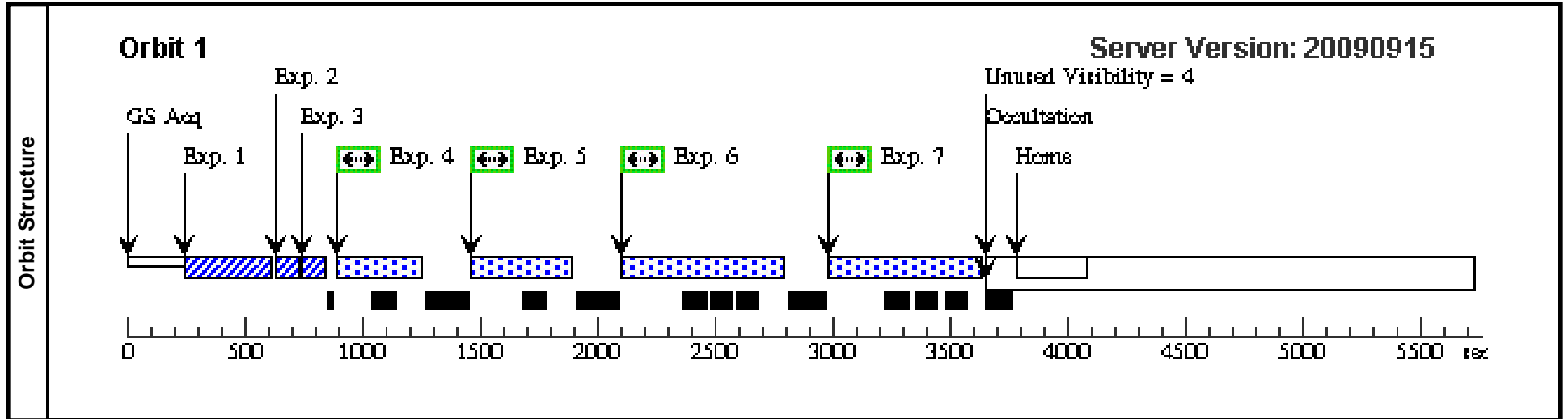
Visit	<b>Proposal 11625, Visit 17, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(27)	CL-NGC-346-MPG-299	RA: 00 58 55.2200 (14.7300833d) Dec: -72 09 6.20 (-72.15172d) Equinox: J2000		V=15.50+/-0.02 E(B-V)=0.01	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(27) CL-NGC-346-MPG-299	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T				0.3 Secs [==>]	[1]
	2	(27) CL-NGC-346-MPG-299	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A					0.3 Secs [==>]	[1]
	3	(27) CL-NGC-346-MPG-299	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3				0.3 Secs [==>]	[1]
	4	(27) CL-NGC-346-MPG-299	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=15 2; EXTENDED=NO; FLASH=YES; FP-POS=3				335.0 Secs [==>]	[1]
	5	(27) CL-NGC-346-MPG-299	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=16 7; EXTENDED=NO; FLASH=YES; FP-POS=3				334.0 Secs [==>]	[1]
	6	(27) CL-NGC-346-MPG-299	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=30 6; EXTENDED=NO; FLASH=YES; FP-POS=3				600.0 Secs [==>]	[1]
7	(27) CL-NGC-346-MPG-299	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=36 5; EXTENDED=NO; FLASH=YES; FP-POS=3				600.0 Secs [==>]	[1]	



Proposal 11625 - Visit 18 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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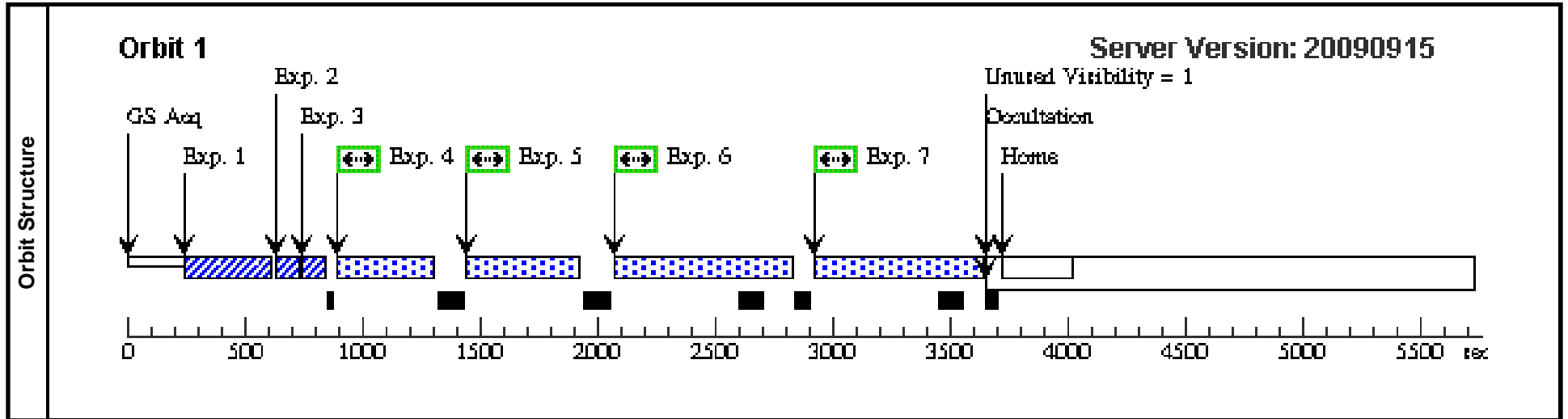
Visit	<b>Proposal 11625, Visit 18, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(21)	SK-190	RA: 01 31 28.0000 (22.8666667d) Dec: -73 22 14.60 (-73.37072d) Equinox: J2000		V=13.54+/-0.02 E(B-V)=0.10	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(21) SK-190	COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.1 Secs [==>]	[1]
	2		(21) SK-190	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.1 Secs [==>]	[1]
	3		(21) SK-190	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.1 Secs [==>]	[1]
	4		(21) SK-190	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			311.0 Secs [==>]	[1]
	5		(21) SK-190	COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=11 1; EXTENDED=NO; FLASH=YES; FP-POS=3			309.0 Secs [==>]	[1]
	6		(21) SK-190	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=11 5; EXTENDED=NO; FLASH=YES; FP-POS=3			530.0 Secs [==>]	[1]
	7		(21) SK-190	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=13 1; EXTENDED=NO; FLASH=YES; FP-POS=3			530.0 Secs [==>]	[1]



Proposal 11625 - Visit 19 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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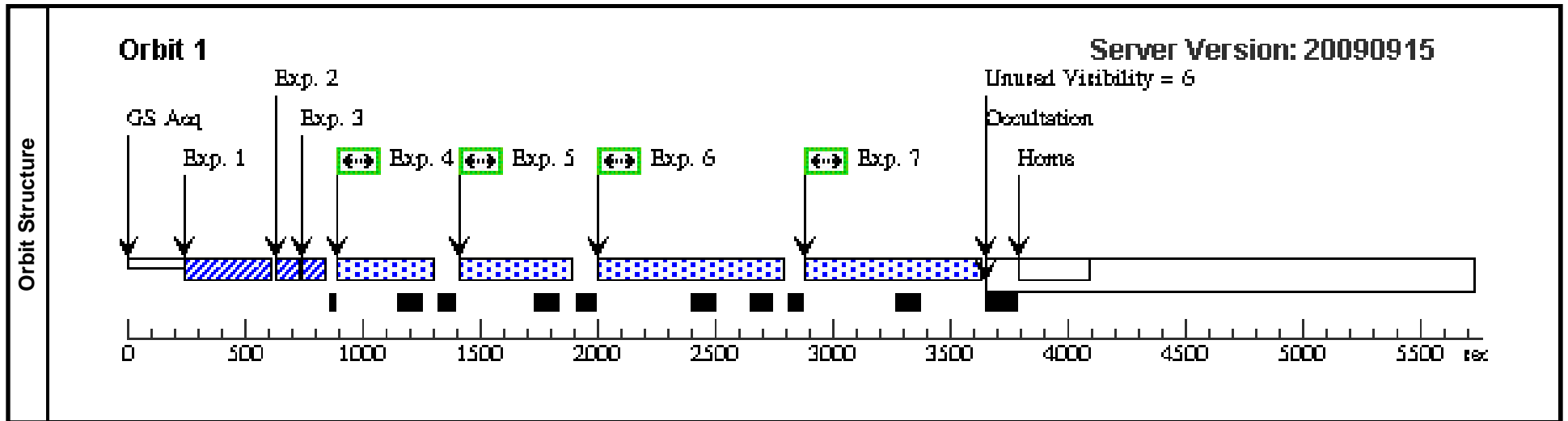
Visit	<b>Proposal 11625, Visit 19, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(26)	AZV-261	RA: 01 00 58.7700 (15.2448750d) Dec: -72 30 49.70 (-72.51381d) Equinox: J2000			V=13.88+/-0.02 E(B-V)=0.20; f(1150)=1.5E-13	Reference Frame: ICRS			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(26) AZV-261		COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.1 Secs [==>]	[1]
	2	(26) AZV-261		COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.1 Secs [==>]	[1]
	3	(26) AZV-261		COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.1 Secs [==>]	[1]
	4	(26) AZV-261		COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=34 0; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	5	(26) AZV-261		COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=34 0; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	6	(26) AZV-261		COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=39 1; EXTENDED=NO; FLASH=YES; FP-POS=3			595.0 Secs [==>]	[1]
7	(26) AZV-261		COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=42 7; EXTENDED=NO; FLASH=YES; FP-POS=3			595.0 Secs [==>]	[1]	



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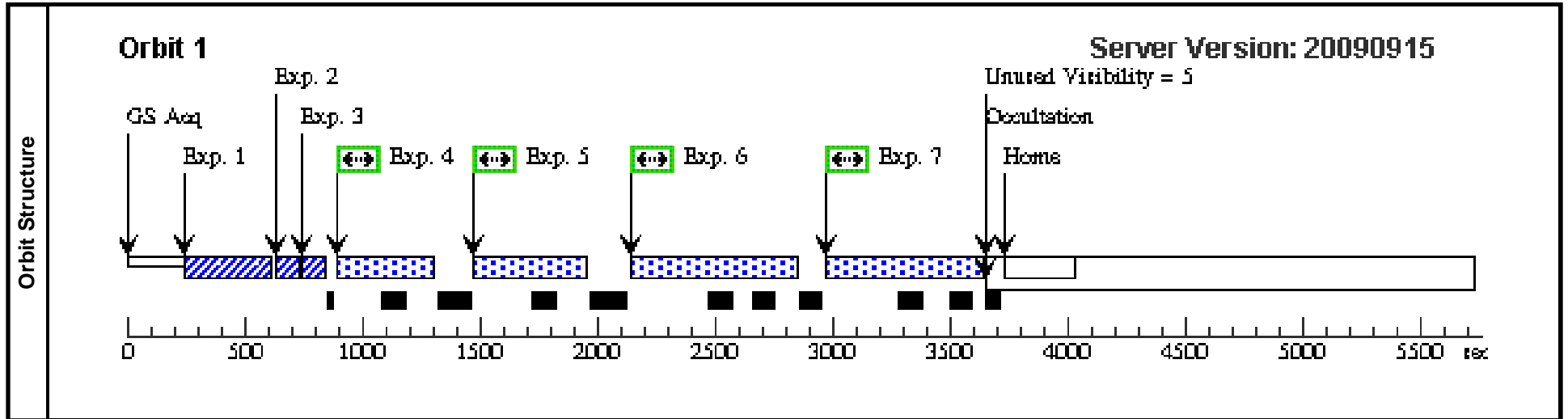
Visit	<b>Proposal 11625, Visit 20, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(23)	AZV-43	RA: 00 48 47.9700 (12.1998750d) Dec: -72 46 24.50 (-72.77347d) Equinox: J2000		V=13.88+/-0.02 E(B-V)=0.15	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(23) AZV-43	COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.3 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2		(23) AZV-43	COS/FUV, ACQ/PEAKXD, PSA	G130M				0.3 Secs	
					1291 A				[==>]	[1]
	3		(23) AZV-43	COS/FUV, ACQ/PEAKD, PSA	G130M		STEP-SIZE=1.2;			0.3 Secs
				1291 A		CENTER=DEF;			[==>]	[1]
						NUM-POS=3				
4		(23) AZV-43	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=22			360.0 Secs	
				1291 A		5;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
5		(23) AZV-43	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=21			360.0 Secs	
				1327 A		4;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
6		(23) AZV-43	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=25			625.0 Secs	
				1577 A		1;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
7		(23) AZV-43	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=28			625.0 Secs	
				1623 A		1;			[==>]	[1]
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				



Proposal 11625 - Visit 21 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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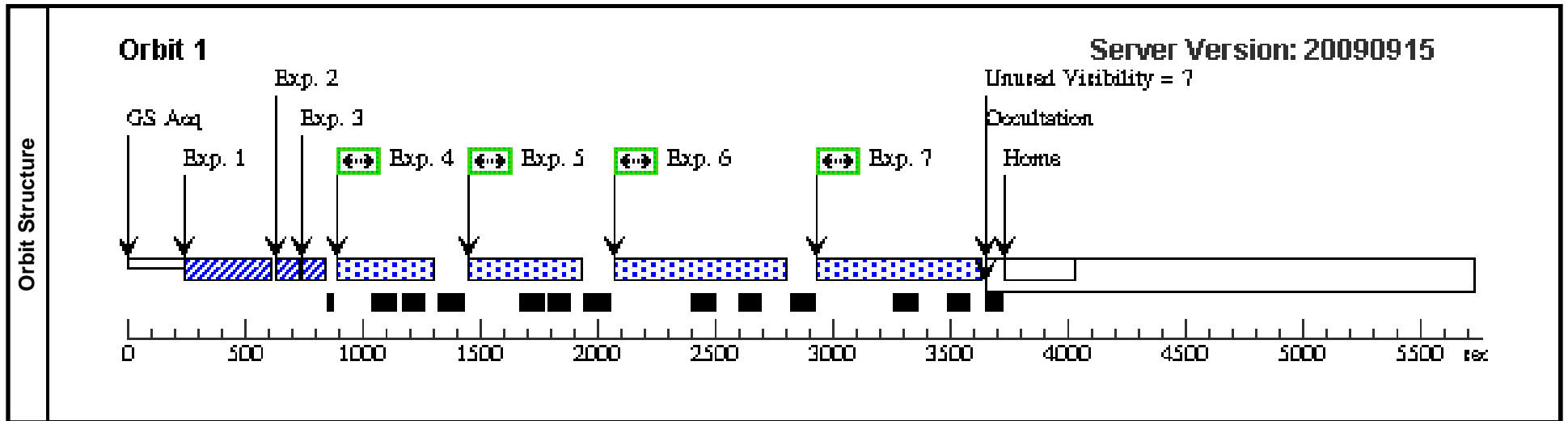
Visit	<b>Proposal 11625, Visit 21, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(24)	AZV-307	RA: 01 02 32.1000 (15.6337500d) Dec: -72 39 42.10 (-72.66169d) Equinox: J2000		V=13.96+/-0.02 E(B-V)=0.11	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(24) AZV-307		COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2	(24) AZV-307		COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3	(24) AZV-307		COS/FUV, ACQ/PEAKD, PSA	G130M	STEP-SIZE=1.2;			0.2 Secs	
				1291 A	CENTER=DEF;			[==>]	[1]	
						NUM-POS=3				
4	(24) AZV-307		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=15			360.0 Secs		
				1291 A	1;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
5	(24) AZV-307		COS/FUV, TIME-TAG, PSA	G130M	BUFFER-TIME=14			360.0 Secs		
				1327 A	5;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
6	(24) AZV-307		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=19			545.0 Secs		
				1577 A	0;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					
7	(24) AZV-307		COS/FUV, TIME-TAG, PSA	G160M	BUFFER-TIME=21			545.0 Secs		
				1623 A	5;			[==>]	[1]	
					EXTENDED=NO;					
					FLASH=YES;					
					FP-POS=3					



Proposal 11625 - Visit 22 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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Visit	<b>Proposal 11625, Visit 22, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(25)	AZV-439	RA: 01 08 51.1100 (17.2129583d) Dec: -71 49 51.40 (-71.83094d) Equinox: J2000		V=14.64+/-0.02 E(B-V)=0.04	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(25) AZV-439	COS/FUV, ACQ/SEARCH, PSA	G130M	SCAN-SIZE=3;			0.2 Secs	
					1291 A	CENTER=FLUX-W			[==>]	[1]
						T				
	2		(25) AZV-439	COS/FUV, ACQ/PEAKXD, PSA	G130M				0.2 Secs	
					1291 A				[==>]	[1]
	3		(25) AZV-439	COS/FUV, ACQ/PEAKD, PSA	G130M		STEP-SIZE=1.2;		0.2 Secs	
				1291 A		CENTER=DEF;		[==>]	[1]	
						NUM-POS=3				
4		(25) AZV-439	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=11		360.0 Secs		
				1291 A		9;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
5		(25) AZV-439	COS/FUV, TIME-TAG, PSA	G130M		BUFFER-TIME=11		360.0 Secs		
				1327 A		7;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
6		(25) AZV-439	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=19		570.0 Secs		
				1577 A		0;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				
7		(25) AZV-439	COS/FUV, TIME-TAG, PSA	G160M		BUFFER-TIME=22		575.0 Secs		
				1623 A		3;		[==>]	[1]	
						EXTENDED=NO;				
						FLASH=YES;				
						FP-POS=3				



Proposal 11625 - Visit 50 - Beyond the classical paradigm of stellar winds: Investigating clumping, rotation and the ...

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Visit	<b>Proposal 11625, Visit 50</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: COS/FUV Special Requirements: (none) <i>Comments: This is a repeat of failed visit 20.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(23)	AZV-43	RA: 00 48 47.9700 (12.1998750d) Dec: -72 46 24.50 (-72.77347d) Equinox: J2000			V=13.88+/-0.02 E(B-V)=0.15	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(23) AZV-43		COS/FUV, ACQ/SEARCH, PSA	G130M 1291 A	SCAN-SIZE=3; CENTER=FLUX-W T			0.3 Secs [==>]	[1]
	2	(23) AZV-43		COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.3 Secs [==>]	[1]
	3	(23) AZV-43		COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	STEP-SIZE=1.2; CENTER=DEF; NUM-POS=3			0.3 Secs [==>]	[1]
	4	(23) AZV-43		COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=22 5; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	5	(23) AZV-43		COS/FUV, TIME-TAG, PSA	G130M 1327 A	BUFFER-TIME=21 4; EXTENDED=NO; FLASH=YES; FP-POS=3			360.0 Secs [==>]	[1]
	6	(23) AZV-43		COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=25 1; EXTENDED=NO; FLASH=YES; FP-POS=3			625.0 Secs [==>]	[1]
	7	(23) AZV-43		COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=28 1; EXTENDED=NO; FLASH=YES; FP-POS=3			625.0 Secs [==>]	[1]

