



13107 - AG Dra: High-Resolution Spectra of the Brightest Supersoft Source

Cycle: 20, 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) V-AG-DRA	STIS/CCD STIS/FUV-MAMA	3	11-Jul-2013 12:00:05.0	yes
02	(1) V-AG-DRA	STIS/CCD STIS/NUV-MAMA	3	11-Jul-2013 12:00:16.0	yes

6 Total Orbits Used

ABSTRACT

Supersoft sources (SSS) are a fundamental type of binary evolution that may be key to understanding Type Ia supernovae, but they remain difficult to study due to their rarity. AG Dra is the brightest SSS with an X-ray spectrum that peaks in the LETG bandpass. Our proposed observation will address the many questions that have arisen about this source based on observations in other bandpasses, including the origin of its high bolometric luminosity and whether or not the soft X-rays arise purely from the photosphere of the white dwarf. By combining LETG and HST STIS spectra, both of which could contain lines from the same ions, we will determine not only the primary emission mechanisms but also the velocities and perhaps origins of these ions.

OBSERVING DESCRIPTION

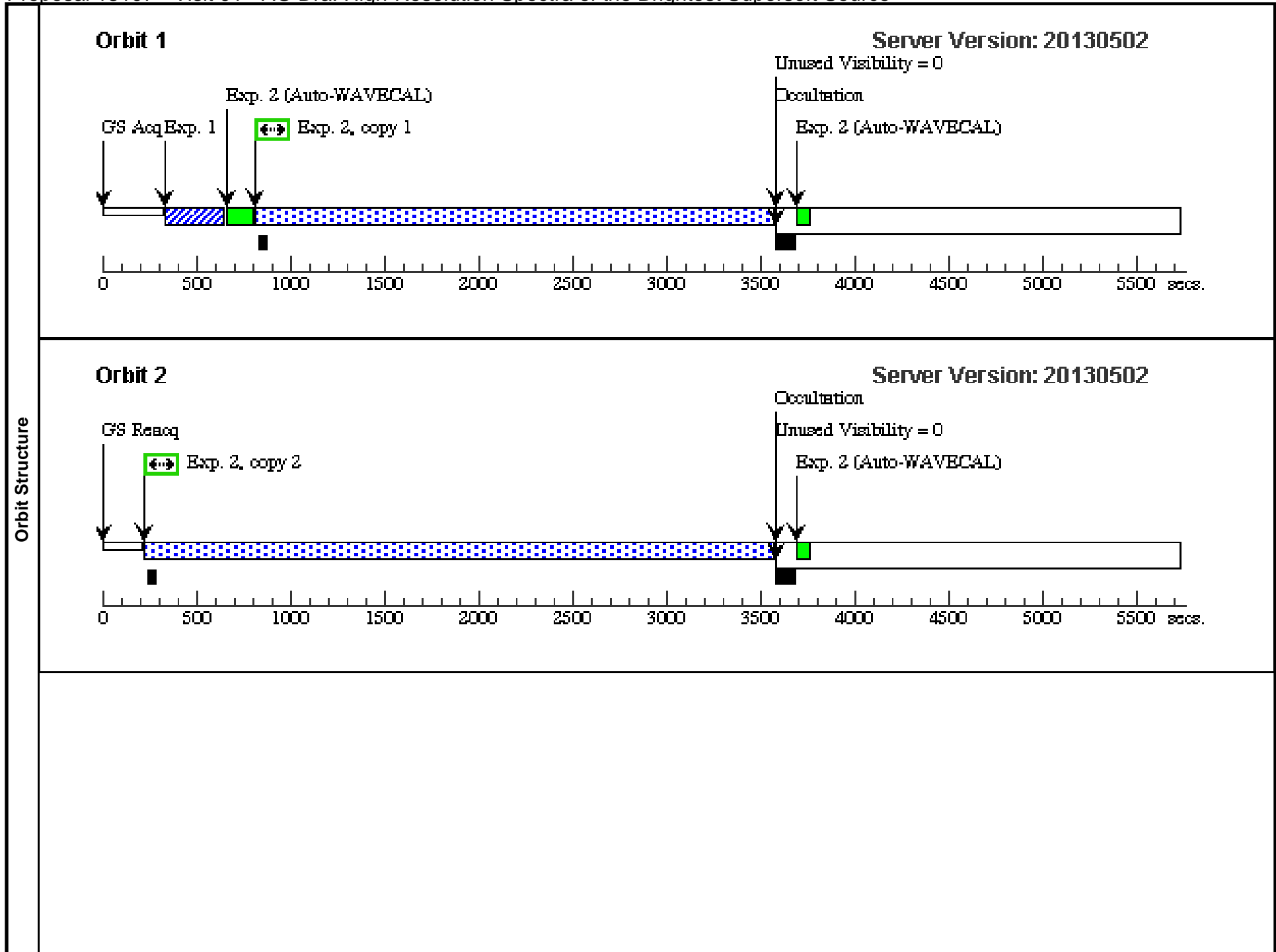
STIS observations of the symbiotic star AG Dra, 6 orbits, 2 visits: Visit 1: FUV/MAMA E140M (total 9408s); Visit 2: NUV/MAMA E230M, 2 positions: 1978 (6048 s) and 2707 (3330 s)

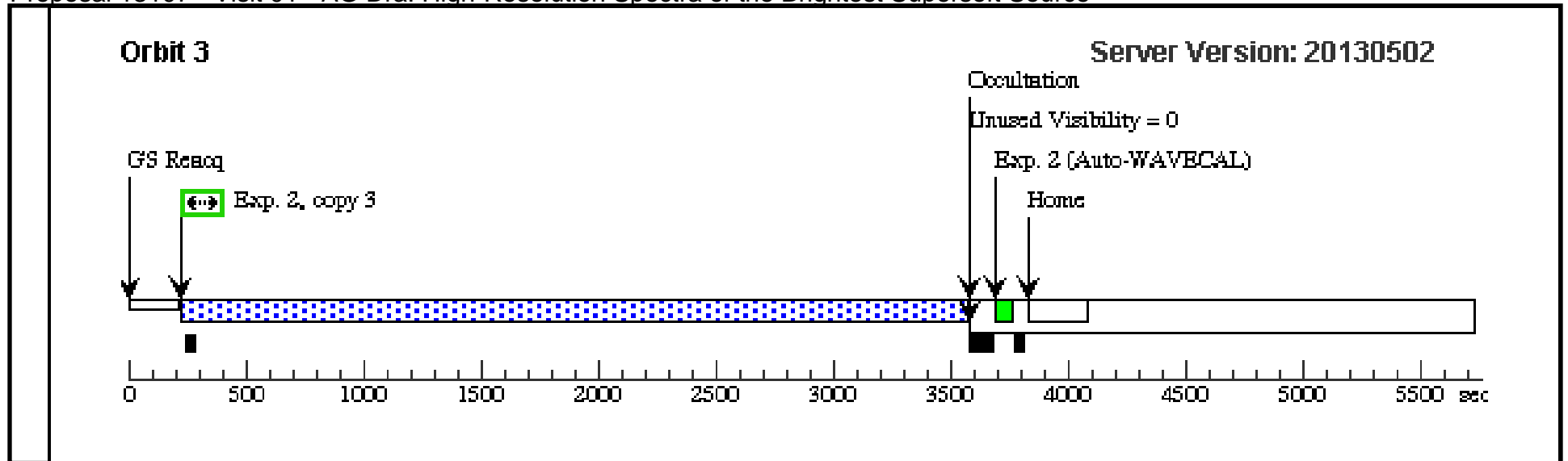
Two visits separated by less than 2 days.

Proposal 13107 - Visit 01 - AG Dra: High-Resolution Spectra of the Brightest Supersoft Source

Thu Jul 11 16:00:24 GMT 2013

Visit	Proposal 13107, Visit 01, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD, STIS/FUV-MAMA Special Requirements: (none) <i>Comments: STIS, 1 echelle grating settings, 1 central wavelnghts, repeat 3 times</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous		
(1)		V-AG-DRA	RA: 16 01 41.0112 (240.4208800d) Dec: +66 48 10.14 (66.80282d) Equinox: J2000	Proper Motion RA: -7.66 mas/yr Proper Motion Dec: -5.49 mas/yr Parallax: 0.0" Epoch of Position: 2000.0	V=9.82	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Positions and parallax fro Hipparcos Astrometric catalogue (2007)</i>										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) V-AG-DRA	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1B3		5 Secs (5 Secs)	
									[==>]	[1]
	2	(433586)	(1) V-AG-DRA	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2600 Secs X 3 (9400 Secs)	
									[==>2740.0 Secs (Copy 1)]	[1]
								[==>3330.0 Secs (Copy 2)]	[2]	
								[==>3330.0 Secs (Copy 3)]	[3]	





Proposal 13107 - Visit 02 - AG Dra: High-Resolution Spectra of the Brightest Supersoft Source

Thu Jul 11 16:00:27 GMT 2013

Visit	Proposal 13107, Visit 02, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD, STIS/NUV-MAMA Special Requirements: AFTER 01 BY 0 D TO 2 D									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	V-AG-DRA	RA: 16 01 41.0112 (240.4208800d) Dec: +66 48 10.14 (66.80282d) Equinox: J2000	Proper Motion RA: -7.66 mas/yr Proper Motion Dec: -5.49 mas/yr Parallax: 0.0" Epoch of Position: 2000.0	V=9.82	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Positions and parallax fro Hipparcos Astrometric catalogue (2007)</i>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(433583)	(1) V-AG-DRA	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1B3		5 Secs (5 Secs) [==>]	[1]
	2	(433593)	(1) V-AG-DRA	STIS/NUV-MAMA, ACCUM, 0.2X0.2	E230M 1978 A				2260 Secs X 2 (6040 Secs) [==>2710.0 Secs (Copy 1)] [==>3330.0 Secs (Copy 2)]	[1] [2]
	3	(433595)	(1) V-AG-DRA	STIS/NUV-MAMA, ACCUM, 0.2X0.2	E230M 2707 A				2000 Secs (3330 Secs) [==>3330.0 Secs]	[3]

