



15989 - A Tale of Two Remnants: A Comparative Study of the Young Ia SNRs 0509-67.5 and 0519-69.0

Cycle: 27, 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>
02	(1) SNR-B0519-69.0	WFC3/UVIS	3	13-Jul-2020 14:00:30.0	yes
52	(1) SNR-B0519-69.0	WFC3/UVIS	2	13-Jul-2020 14:00:31.0	yes

5 Total Orbits Used

ABSTRACT

We propose deep observations of two young supernova remnants in the LMC, 0509-67.5 and 0519-69.0. Both are remnants of Type Ia supernovae. Along with three complementary HST orbits, we will compare and contrast these two objects, exploring the nature of Type Ia supernova explosions and particle acceleration in the fast shock waves present. Our observations will locate the supernova ejecta products and measure their abundances, both key discriminators in various explosion models. We will measure or put limits on the expansion of both remnants.

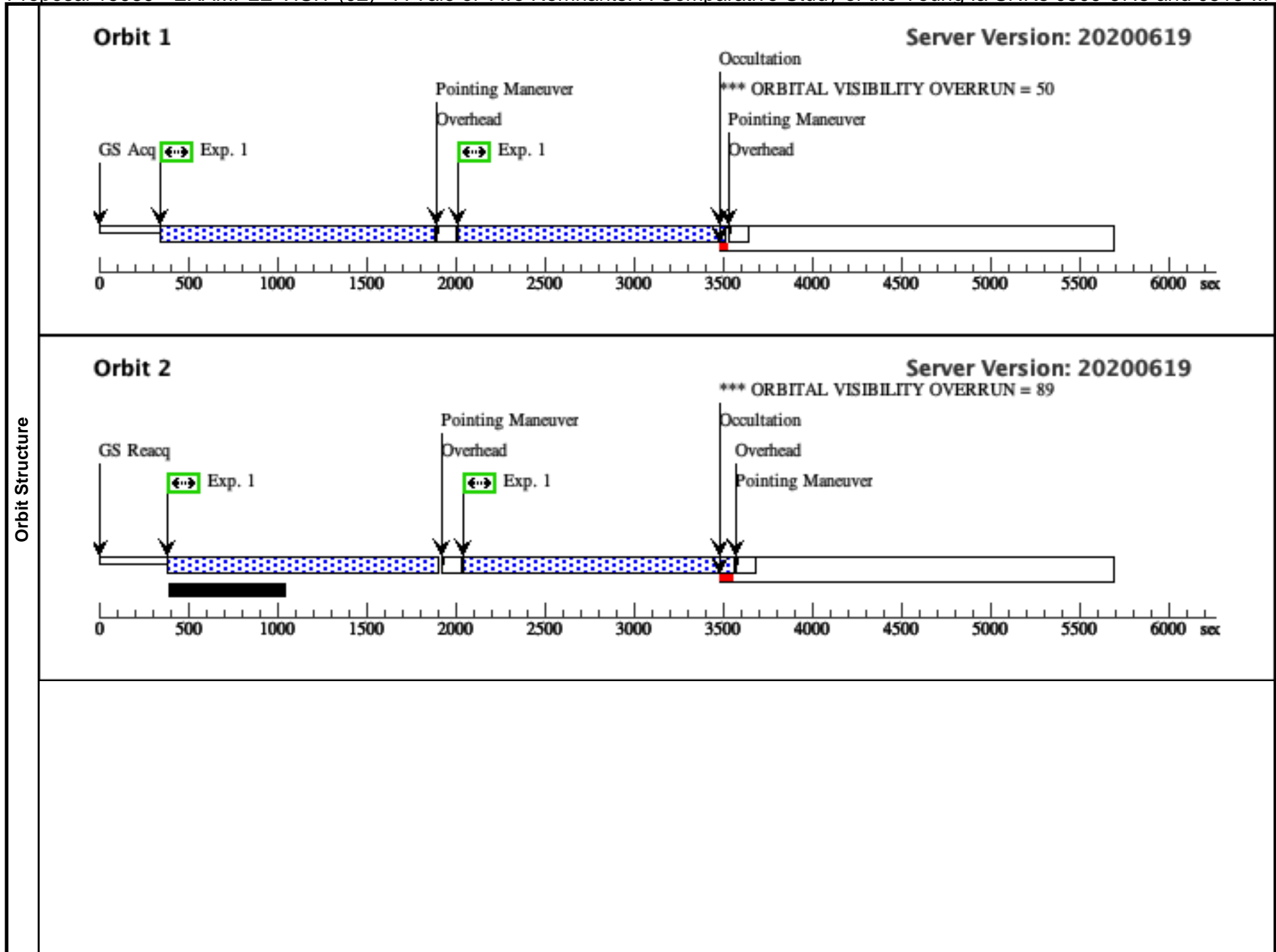
OBSERVING DESCRIPTION

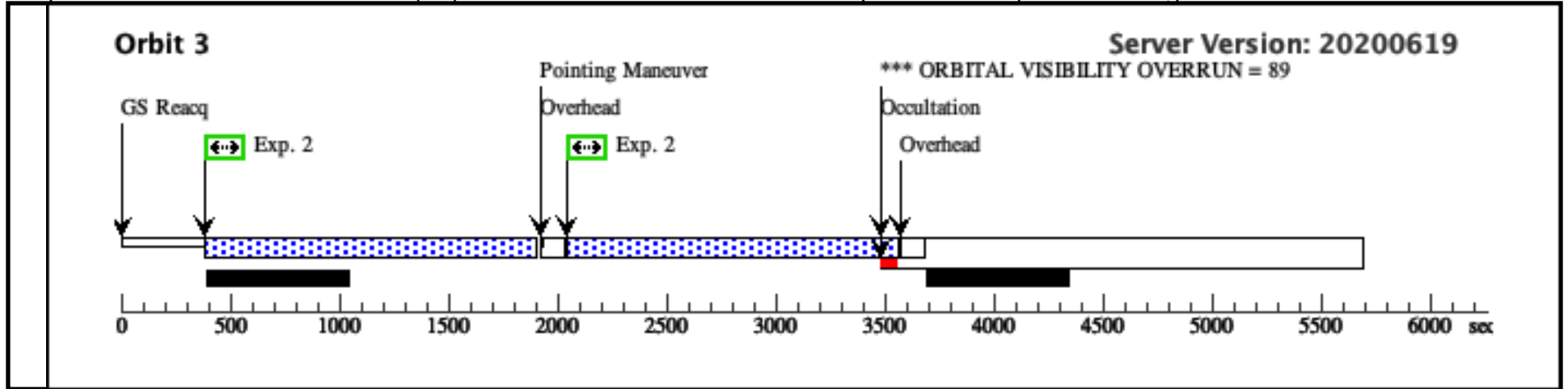
This is a single filter image of a small target (30" diameter) with the F657N filter, using 3 orbits.

Proposal 15989 - EXAMPLE VISIT (02) - A Tale of Two Remnants: A Comparative Study of the Young Ia SNRs 0509-67.5 and 0519-...

Mon Jul 13 18:00:31 GMT 2020

Visit	Proposal 15989, EXAMPLE VISIT (02), failed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(EXAMPLE VISIT (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (EXAMPLE VISIT (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (EXAMPLE VISIT (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
Diagnosics										
Patterns	#	Primary Pattern	Secondary Pattern	Exposures						
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false		(1)						
(3)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)							
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	SNR-B0519-69.0	RA: 05 19 35.1400 (79.8964167d) Dec: -69 02 0.50 (-69.03347d) Equinox: J2000	Epoch of Position: 2015.5	V=20	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=UNIDENTIFIED Description=[EMISSION LINE NEBULA, FILAMENT, RING, SHELL, SHOCK FRONT]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) SNR-B0519-69.0	WFC3/UVIS, ACCUM, UVIS2	F657N	FLASH=6			Pattern 2, Exps 1-1 in EXAMPLE VISIT (02) (2)	1500 Secs (6054 Secs) [==>1506.0 Secs (Pattern 1)] [==>1506.0 Secs (Pattern 2)] [==>1521.0 Secs (Pattern 3)] [==>1521.0 Secs (Pattern 4)]	[1] [2]
2	(1) SNR-B0519-69.0	WFC3/UVIS, ACCUM, UVIS2	F657N	FLASH=6			Pattern 3, Exps 2-2 in EXAMPLE VISIT (02) (3)	1500 Secs (3042 Secs) [==>1521.0 Secs (Pattern 1)] [==>1521.0 Secs (Pattern 2)]	[3]	





Proposal 15989 - EXAMPLE VISIT - Repeat (52) - A Tale of Two Remnants: A Comparative Study of the Young Ia SNRs 0509-67.5 a...

Mon Jul 13 18:00:32 GMT 2020

Visit	Proposal 15989, EXAMPLE VISIT - Repeat (52), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: (none) <i>Comments: Repeat of failed visit 02</i>											
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures		
(2)		Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112				Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false			(1)			
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous				
	(1)	SNR-B0519-69.0	RA: 05 19 35.1400 (79.8964167d) Dec: -69 02 0.50 (-69.03347d) Equinox: J2000		Epoch of Position: 2015.5		V=20	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=UNIDENTIFIED Description=[EMISSION LINE NEBULA, FILAMENT, RING, SHELL, SHOCK FRONT]												
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(1) SNR-B0519-69.0	WFC3/UVIS, ACCUM, UVIS2	F657N	FLASH=6		Pattern 2, Exps 1-1 in EXAMPLE VISIT - Repeat (52) (2)	1500 Secs (5914 Secs)			
										[==>1481.0 Secs (Pattern 1)]	[1]	
										[==>1481.0 Secs (Pattern 2)]		
									[==>1476.0 Secs (Pattern 3)]			
									[==>1476.0 Secs (Pattern 4)]	[2]		

