



10564 - Resolving Ultracool White Dwarf Binaries

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Dr. Jay Farihi (PI)	Gemini Observatory, Northern Operations	jfarihi@gemini.edu
Dr. Ben Oppenheimer (CoI)	American Museum of Natural History	bro@amnh.org
Dr. Andrew Digby (CoI)	American Museum of Natural History	apd@amnh.org

VISITS

<i>Visit</i>	<i>Targets</i>	<i>Configurations</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) LHS3250	ACS/HRC	1	20-Jun-2005 11:38:04.0	yes
02	(2) WD0346+246	ACS/HRC	1	20-Jun-2005 11:38:08.0	yes
03	(3) SDSS1337+00	ACS/HRC	1	20-Jun-2005 11:38:11.0	yes
04	(4) GD392B	ACS/HRC	1	20-Jun-2005 11:38:14.0	yes
05	(5) LHS1402	ACS/HRC	1	20-Jun-2005 11:38:16.0	yes
06	(6) CE51	ACS/HRC	1	20-Jun-2005 11:38:19.0	yes
07	(7) WD2356-209	ACS/HRC	1	20-Jun-2005 11:38:21.0	yes
08	(8) SDSSJ0947	ACS/HRC	1	20-Jun-2005 11:38:23.0	yes
09	(9) SDSSJ1220	ACS/HRC	1	20-Jun-2005 11:38:26.0	yes
10	(10) SDSSJ1001	ACS/HRC	1	20-Jun-2005 11:38:28.0	yes

<i>Visit</i>	<i>Targets</i>	<i>Configurations</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
11	(11) SDSSJ1403	ACS/HRC	1	20-Jun-2005 11:38:31.0	yes
12	(12) SDSSJ0854	ACS/HRC	1	20-Jun-2005 11:38:33.0	yes

12 Total Orbits Used

ABSTRACT

We propose an ACS/HRC imaging survey of the coolest white dwarfs known in order to search for binarity. Current models fail to match observed spectral energy distributions of these sub-4000K stellar remnants, consistently predicting much lower luminosities than observed. A possible explanation is that they are binary in nature. Because these cool degenerates have no spectral features, the only way to investigate their apparent overluminosity is with very high resolution imaging, which can only be done with HST (these stars are far too faint to be observed with adaptive optics on the ground). Optical wavelengths are ideal because the spectral energy distributions of these old degenerates peak near 600 nm. With the F435W filter we will be able to partially resolve equally luminous binaries as close as 0.02", which corresponds to within 0.6 AU for over half of the 12 proposed target stars. The collected data will be critical in determining whether these stars represent the oldest white dwarfs in the solar neighborhood.

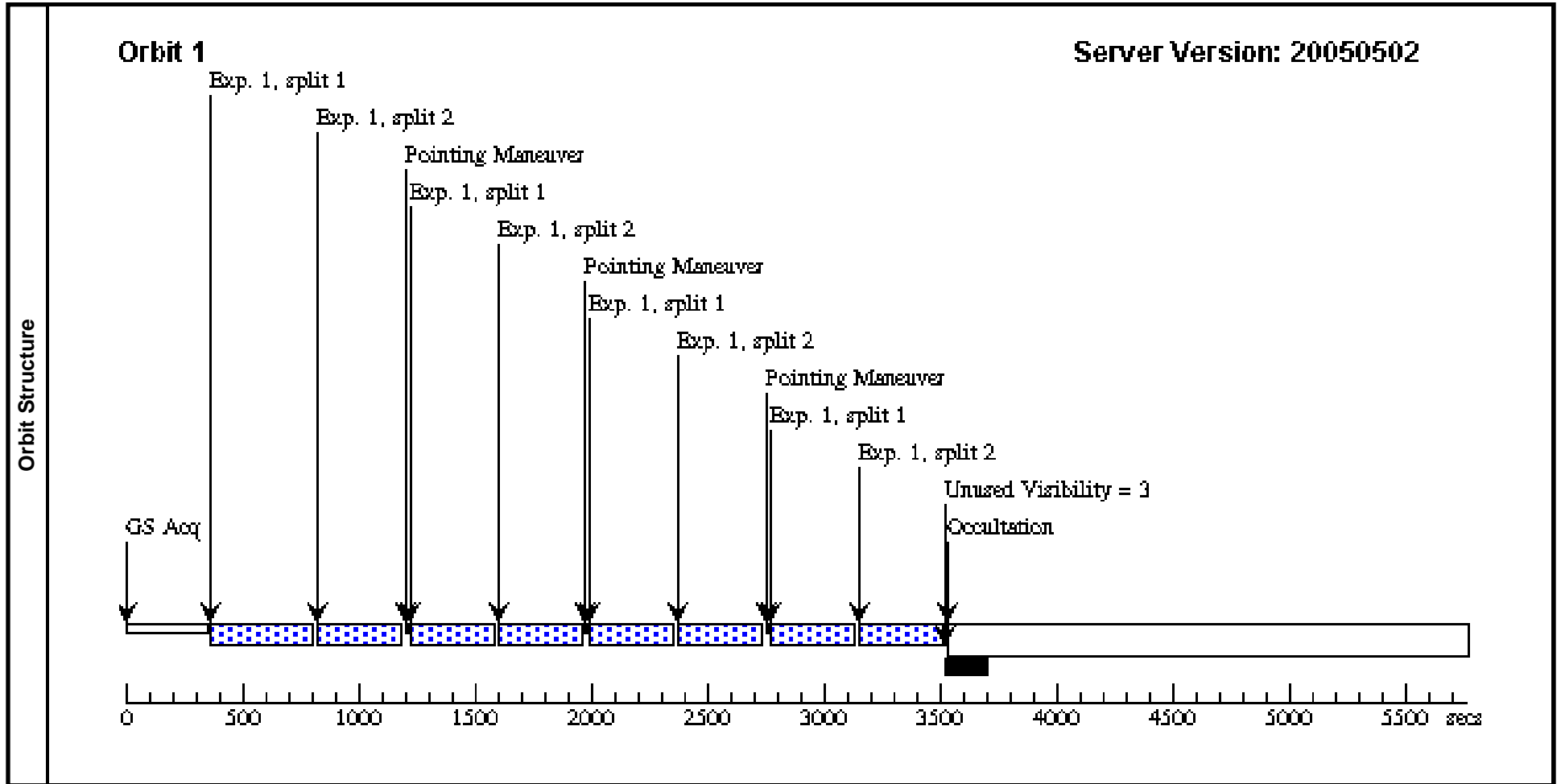
OBSERVING DESCRIPTION

We will use the ACS/HRC with the F435W filter to obtain the highest spatial resolution possible while remaining near the peak in the spectral energy distribution of ultracool WDs. All of our targets have magnitudes at B-band less than around 21 mag and we will probe a full 3 magnitudes deeper for companions. In order to remove cosmic rays, hot pixels, detector blemishes, oversample the PSF, and minimize flat fielding errors we will dither 1.5 arcseconds (at 4 positions) as well as obtain two exposures at each dither position. In order to reach B=24 mag with a signal-to-noise ratio of 25, the exposure time calculator indicates a total integration time near 2400 seconds when an observation is split into 8 exposures. Together with the specified overheads, the orbit planner indicates we can reach very near to our depth goal in a single HST orbit. Therefore, we will use our 12 allotted orbits to probe as deeply as possible within each visibility window.

Proposal 10564 - Visit 01 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:34 GMT 2005

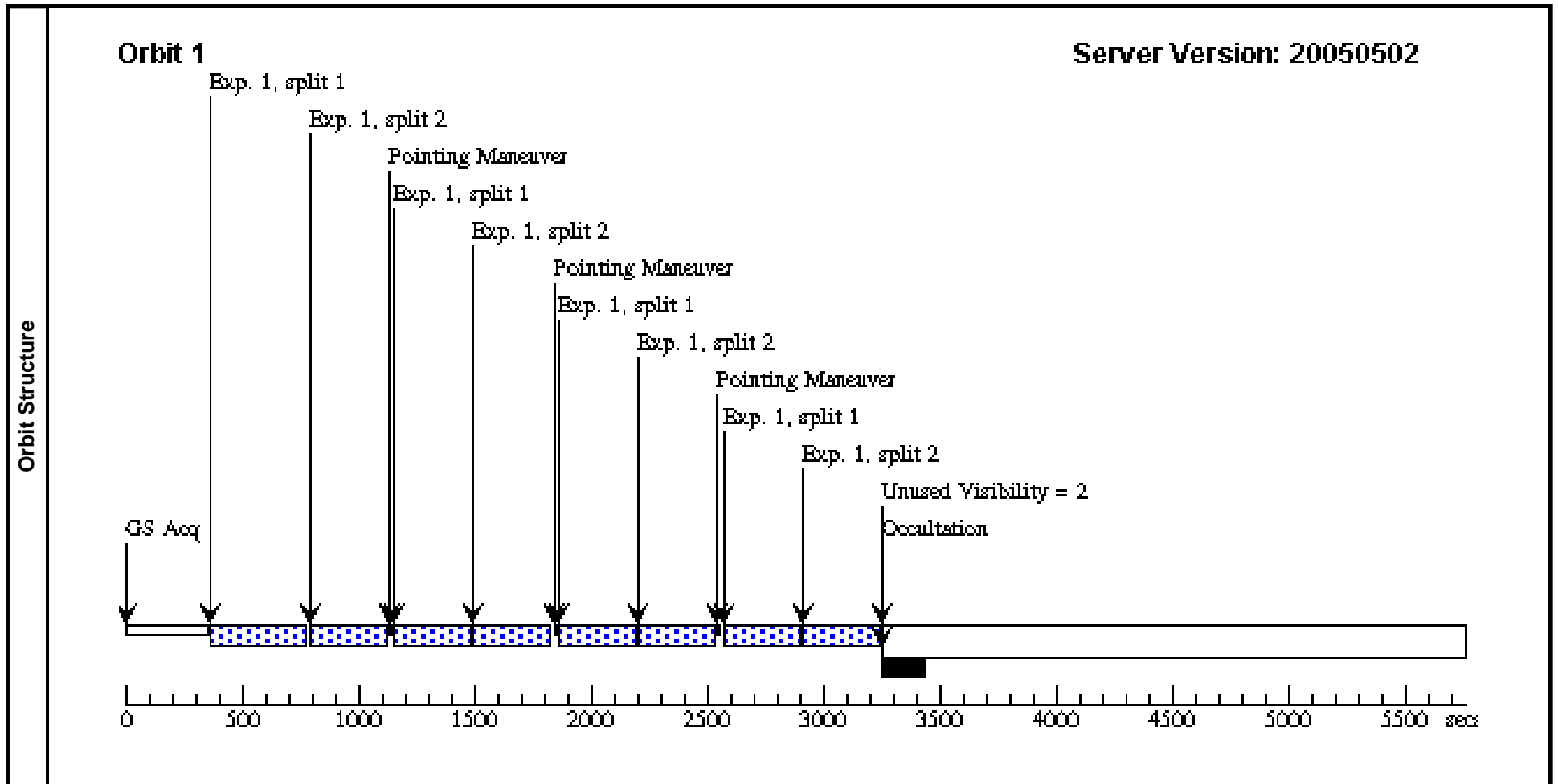
Visit	Proposal 10564, Visit 01 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5	Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true					(1)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	LHS3250	RA: 16 54 1.2400 (253.5051667d) Dec: +62 53 55.30 (62.89869d) Equinox: J2000 Plate Id: (?)	Proper Motion RA: -0.0793s/yr Proper Motion Dec: 0.156"/yr Epoch of Position: 2000.0		V=18.1+/-0.1	Coordinate Source: USNO-B1.0			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) LHS3250	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	660.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]



Proposal 10564 - Visit 02 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:36 GMT 2005

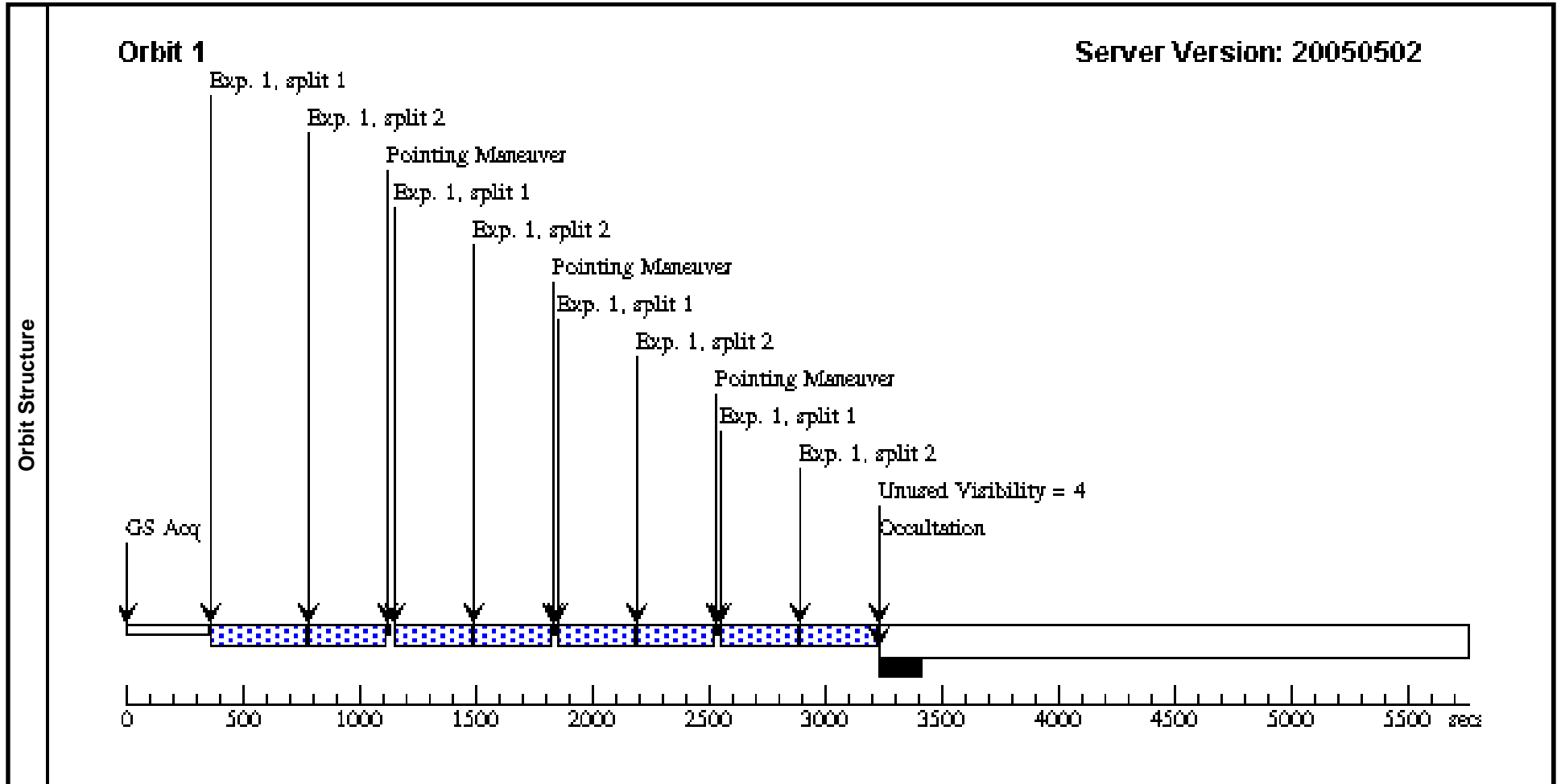
Visit	Proposal 10564, Visit 02 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5		Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true					(1)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(2)	WD0346+246	RA: 03 46 46.5100 (56.6937917d) Dec: +24 56 2.80 (24.93411d) Equinox: J2000 Plate Id: (?)		Proper Motion RA: 0.0402s/yr Proper Motion Dec: -1.182"/yr Epoch of Position: 2000.0		V=19.1+/-0.1	Coordinate Source: 1999MNRAS.309L.33H		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(2) WD0346+246		ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	592.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]



Proposal 10564 - Visit 03 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:37 GMT 2005

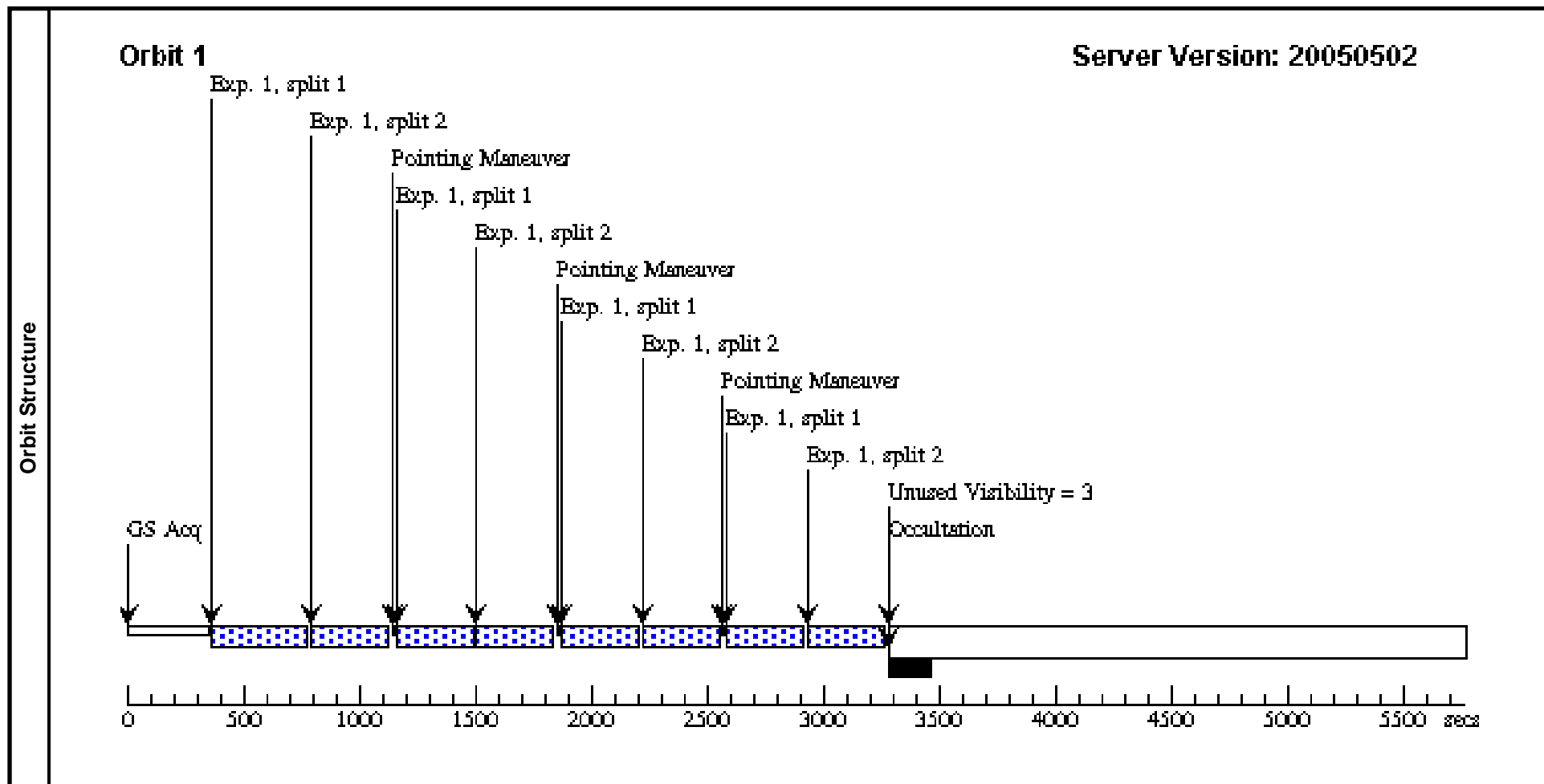
Visit	Proposal 10564, Visit 03 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5		Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true						(1)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(3)	SDSS1337+00	RA: 13 37 39.4000 (204.4141667d) Dec: +00 01 42.80 (.02856d) Equinox: J2000 Plate Id: (?)		Proper Motion RA: -0.0001s/yr Proper Motion Dec: -0.018"/yr Epoch of Position: 2000.0		V=19.3+/-0.1	Coordinate Source: 2001ApJ.549L.109H		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SDSS1337+00	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	586.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]



Proposal 10564 - Visit 04 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:39 GMT 2005

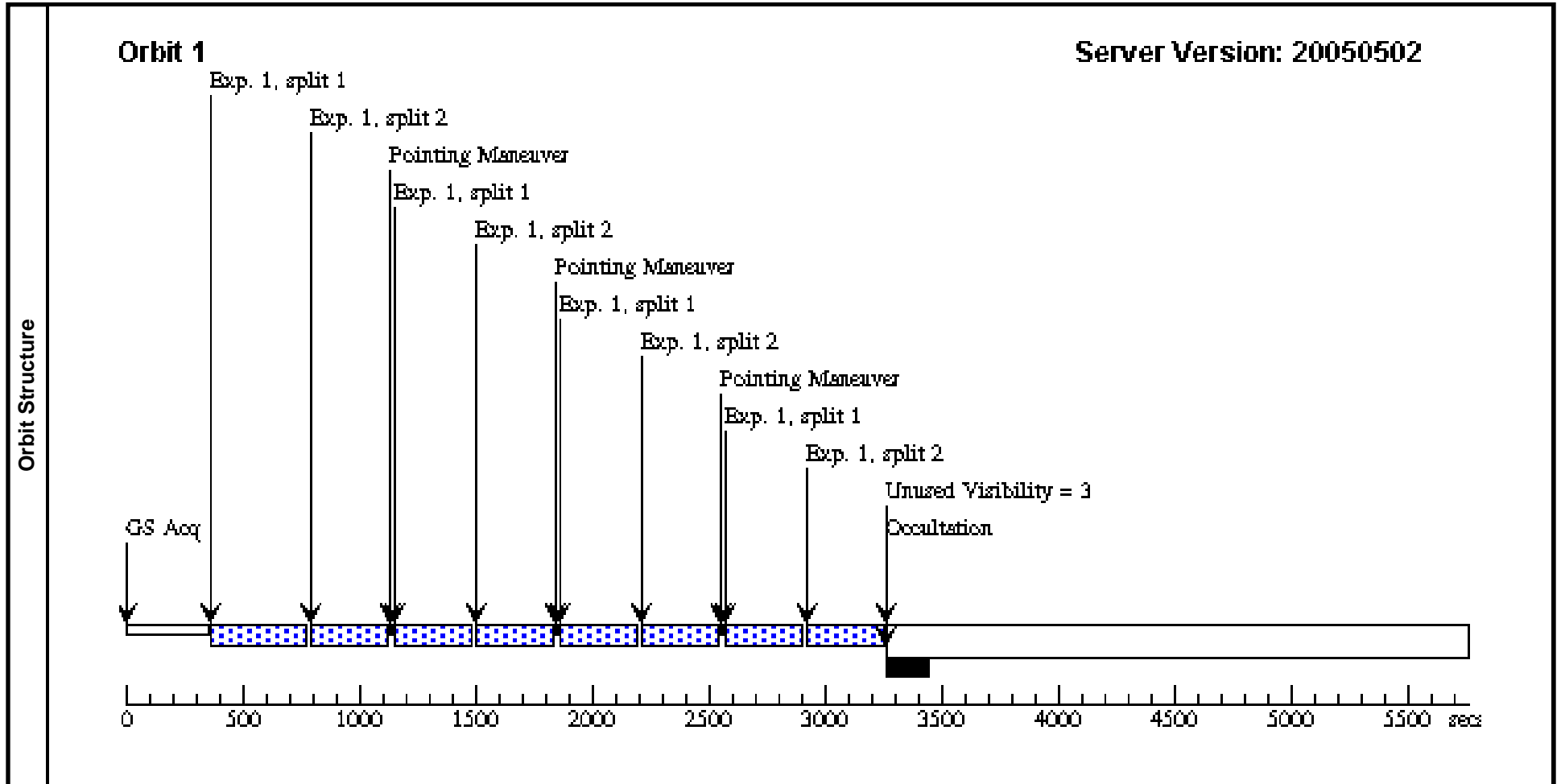
Visit	Proposal 10564, Visit 04 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5		Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true						(1)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(4)	GD392B	RA: 21 00 25.1000 (315.1045833d) Dec: +34 26 9.00 (34.43583d) Equinox: J2000 Plate Id: (?)		Proper Motion RA: 0.0092s/yr Proper Motion Dec: 0.084"/yr Epoch of Position: 2000.0		V=19.5+/-0.1	Coordinate Source: 2004ApJ.610.1013F		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) GD392B	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	598.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]



Proposal 10564 - Visit 05 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:40 GMT 2005

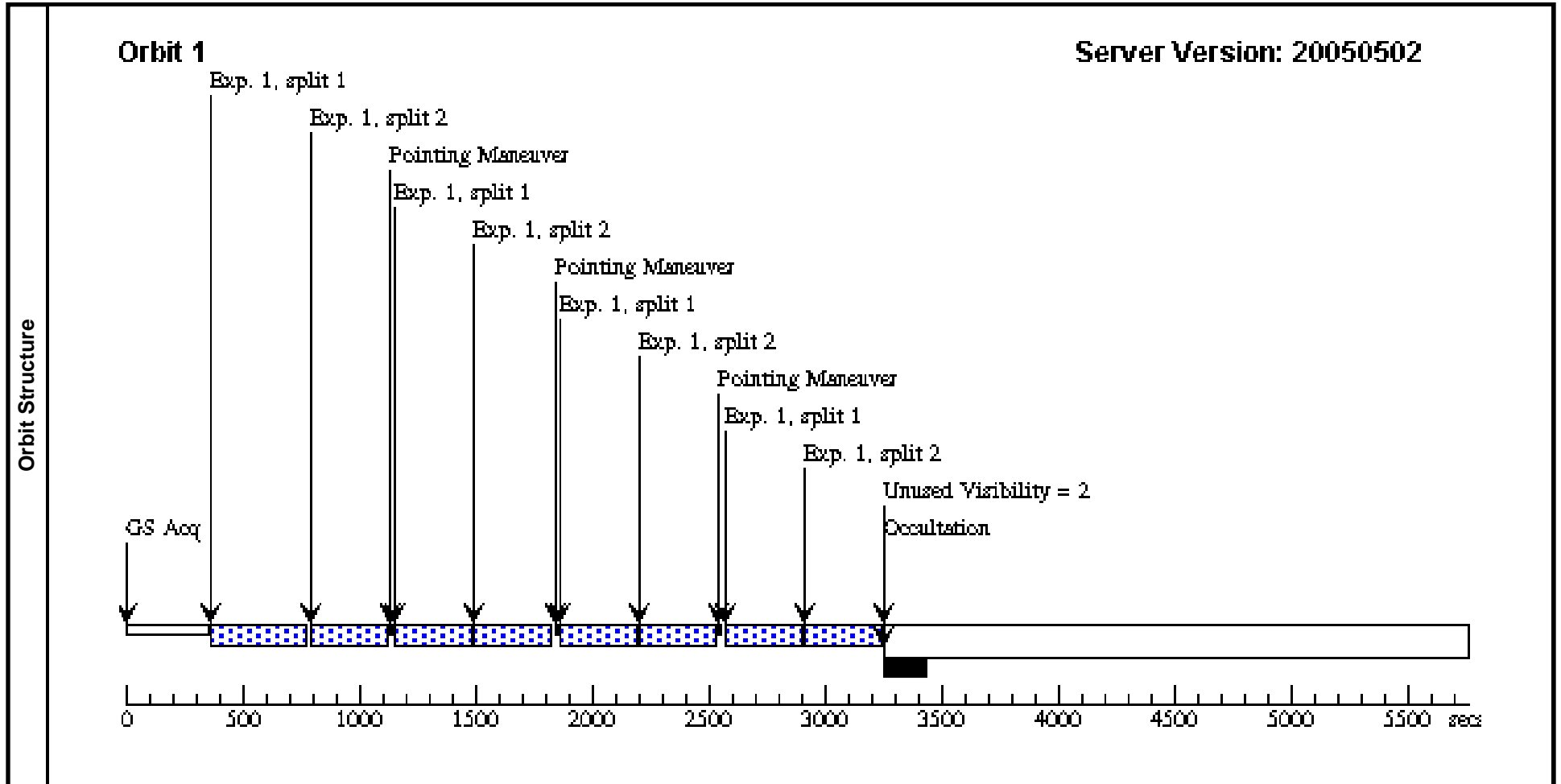
Visit	Proposal 10564, Visit 05 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5	Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true					(1)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(5)	LHS1402	RA: 02 24 32.2400 (36.1343333d) Dec: -28 54 59.30 (-28.91647d) Equinox: J2000 Plate Id: (?)	Proper Motion RA: 0.0375s/yr Proper Motion Dec: -0.03"/yr Epoch of Position: 2000.0		V=18.1+/-0.1	Coordinate Source: 2004ApJ.601.1075S			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(5) LHS1402	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	594.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]



Proposal 10564 - Visit 06 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:42 GMT 2005

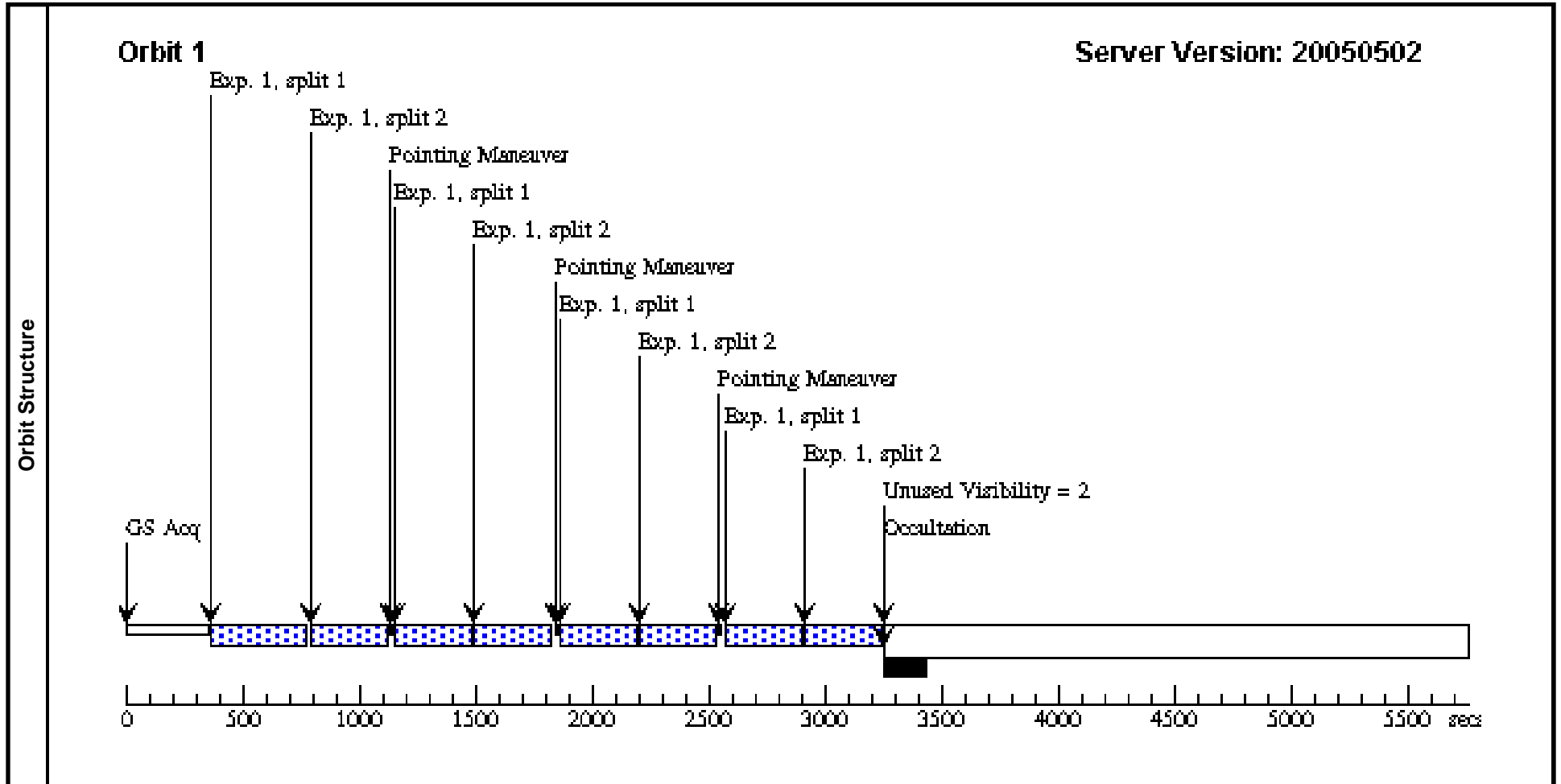
Visit	Proposal 10564, Visit 06 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern			Secondary Pattern				Exposures
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5	Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true					(1)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(6)	CE51	RA: 08 53 57.5000 (133.4895833d) Dec: -24 46 56.00 (-24.78222d) Equinox: J2000 Plate Id: (?)	Proper Motion RA: 0.0441s/yr Proper Motion Dec: 0.155"/yr Epoch of Position: 2000.0	V=18.1+/-0.1		Coordinate Source: 2001ApJS.133.119R			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(6) CE51	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2			Pattern 1-1 (1)	592.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]



Proposal 10564 - Visit 07 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:43 GMT 2005

Visit	Proposal 10564, Visit 07 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5				Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true				(1)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(7)	WD2356-209	RA: 23 56 45.0900 (359.1878750d) Dec: -20 54 49.30 (-20.91369d) Equinox: J2000 Plate Id: (?)		Proper Motion RA: -0.0235s/yr Proper Motion Dec: -0.211"/yr Epoch of Position: 2000.0		V=20.9+/-0.1	Coordinate Source: 2004ApJ.601.1075S		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(7) WD2356-209	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	592.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]



Proposal 10564 - Visit 08 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:44 GMT 2005

Visit	Proposal 10564, Visit 08 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5				Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true				(1)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(8)	SDSSJ0947	RA: 09 47 23.0000 (146.8458333d) Dec: +44 59 49.00 (44.99694d) Equinox: J2000 Plate Id: (?)		Proper Motion RA: 0.007s/yr Proper Motion Dec: 0.045"/yr Epoch of Position: 2000.0		V=19.5+/-0.1	Coordinate Source: 2004ApJ.612L.129G		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(8) SDSSJ0947	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	614.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]

Proposal 10564 - Visit 09 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:46 GMT 2005

Visit	Proposal 10564, Visit 09 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5	Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true					(1)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(9)	SDSSJ1220	RA: 12 20 48.7000 (185.2029167d) Dec: +09 14 12.00 (9.23667d) Equinox: J2000 Plate Id: (?)	Proper Motion RA: -0.023s/yr Proper Motion Dec: -0.372"/yr Epoch of Position: 2000.0		V=20.4+/-0.1	Coordinate Source: 2004ApJ.612L.129G			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(9) SDSSJ1220	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	588.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]

Proposal 10564 - Visit 10 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:47 GMT 2005

Visit	Proposal 10564, Visit 10 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5				Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true				(1)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(10)	SDSSJ1001	RA: 10 01 3.4000 (150.2641667d) Dec: +39 03 40.00 (39.061111d) Equinox: J2000 Plate Id: (?)		Proper Motion RA: -0.0258s/yr Proper Motion Dec: -0.185"/yr Epoch of Position: 2000.0		V=20.0+/-0.1	Coordinate Source: 2004ApJ.612L.129G		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(10) SDSSJ1001	(10) SDSSJ1001	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2		Pattern 1-1 (1)	604.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]

Proposal 10564 - Visit 11 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:48 GMT 2005

Visit	Proposal 10564, Visit 11 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5		Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true						(1)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(11)	SDSSJ1403	RA: 14 03 24.7000 (210.8529167d) Dec: +45 33 33.00 (45.55917d) Equinox: J2000 Plate Id: (?)		Proper Motion RA: -0.0258s/yr Proper Motion Dec: -0.084"/yr Epoch of Position: 2000.0		V=18.9+/-0.1	Coordinate Source: 2004ApJ.612L.129G		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(11) SDSSJ1403	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2			Pattern 1-1 (1)	626.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]

Proposal 10564 - Visit 12 - Resolving Ultracool White Dwarf Binaries

Mon Jun 20 15:38:49 GMT 2005

Visit	Proposal 10564, Visit 12 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none)									
	Patterns	#	Primary Pattern				Secondary Pattern			Exposures
(1)		Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=1.5 Line Spacing=1.5	Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=true						(1)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(12)	SDSSJ0854	RA: 08 54 43.3000 (133.6804167d) Dec: +35 03 53.00 (35.06472d) Equinox: J2000 Plate Id: (?)	Proper Motion RA: -0.0108s/yr Proper Motion Dec: -0.179"/yr Epoch of Position: 2000.0	V=20.5+/-0.1		Coordinate Source: 2004ApJ.612L.129G			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(12) SDSSJ0854	ACS/HRC, ACCUM, HRC	F435W	CR-SPLIT=2			Pattern 1-1 (1)	604.0 Secs [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)]	[1]

