



12673 - HST Observations of Astrophysically Important Visual Binaries

Cycle: 19, 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) PROCYON	WFC3/UVIS	1	20-Jul-2011 21:32:50.0	yes
02	(2) MU-CAS	WFC3/UVIS	1	20-Jul-2011 21:33:02.0	yes
03	(3) SIRIUS	WFC3/UVIS	1	20-Jul-2011 21:33:13.0	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>
04	(4) G107-70 (5) G107-69 (6) G107-70-REF2 (7) G107-70-REF3 (8) G107-70-REF4 (9) G107-70-REF6 (10) G107-70-REF7 (11) G107-70-REF9	FGS	1	20-Jul-2011 21:33:25.0	yes
05	(12) WD1818+126 (13) WD1818-REF1 (14) WD1818-REF2 (15) WD1818-REF3 (16) WD1818-REF4 (18) WD1818-REF6	FGS	1	20-Jul-2011 21:33:30.0	yes

5 Total Orbits Used

ABSTRACT

We propose to continue three long-term programs. All three consist of astrometry of close visual binaries, with the primary goal of determining dynamical masses for 3 important main-sequence stars and 6 white dwarfs (WDs). A secondary aim is to set limits on third bodies in the systems down to planetary mass. Since all 3 programs needed to be proposed for Cycle 18 continuation, we are simplifying the review process by combining them into a single proposal. Three of our 5 targets are naked-eye stars with much fainter companions that are very difficult to image from the ground. Our other 2 targets are double WDs, whose small separations and faintness likewise make them difficult to measure using ground-based techniques.

The bright stars, to be imaged with WFC3, are: (1) Procyon ($P = 40.9$ yr), for which our first HST images yielded an accurate angular separation of the bright F star and its much fainter WD companion. Combined with ground-based astrometry of the bright star, our observation significantly revised downward the derived masses, and brought Procyon A into much better agreement with theoretical evolutionary masses. With the continued monitoring proposed here, we will obtain masses to an accuracy of better than 1%, providing a testbed for theories of both Sun-like stars and WDs. (2) Sirius ($P = 50.1$ yr), an A-type star also having a faint WD companion, Sirius B, the nearest and brightest of all WDs. (3) Mu Cas ($P = 21.0$ yr), a nearby metal-deficient G dwarf for which accurate masses will lead to the stars' helium contents, with cosmological implications.

The faint double WDs, to be observed with FGS, are: (1) G 107-70 ($P = 18.8$ yr), and (2) WD 1818+126 ($P = 12.7$ yr). Our astrometry of these systems will add 4 accurate masses to the handful of WD masses that are directly known from dynamical measurements. The FGS measurements will also provide precise parallaxes for the systems, a necessary ingredient in the mass determinations.

OBSERVING DESCRIPTION

This is the Cycle 19 continuation of several programs in which we are determining the orbits of visual binaries. The targets for Cycle 19 are Procyon, μ Cas, Sirius, WD 1818+126, and G 107-70.

We have been observing WD 1818+126 and G 107-70 with FGS, and this part of the program will continue as before, with 1 orbit of POS mode observations of the target and reference stars made for each of these target fields.

Procyon, μ Cas, and Sirius will be observed with WFC3/UVIS. For the two very bright stars, Procyon and Sirius, we will use the long-wavelength F953N filter to reduce the signal. Since even with this filter Procyon A and Sirius A would saturate in the minimum WFC3 exposure, we will let them saturate and use the diffraction spikes to centroid the bright components. For Procyon there will be a series of dithered 38-sec exposures, which will provide good unsaturated exposures for Procyon B at the same telescope pointing. For Sirius there will be a series of 6- and 12-sec dithered exposures.

For μ Cas, we will use 1.5-sec exposures in F225W, which will not be saturated. These will be followed at each dither position with a 265-sec exposure, which will be well exposed for the cool dM companion.

Proposal 12673 - Visit 01 - HST Observations of Astrophysically Important Visual Binaries

Visit	Proposal 12673, Visit 01, implementation Thu Jul 21 01:33:34 GMT 2011				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: GYRO MODE 3GOBAD; ORIENT 264.8D TO 341.2 D; ORIENT 354.8D TO 22 D; ORIENT 44D TO 71.2 D; ORIENT 84.8D TO 161.2 D; BETWEEN 15-JAN-2012:00:00:00 AND 30-MAR-2012:00:00:00 Comments: ORIENT requirement is done so that companion star will not lie near diffraction spikes or charge bleeding from the very bright primary star.				
Patterns	#	Primary Pattern		Secondary Pattern	Exposures
	(1)	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=true	(1), (2)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	PROCYON	RA: 07 39 18.3700 (114.8265417d)	Proper Motion RA: -0.04755 sec of time/yr	V=0.36+/-0.0
		Alt Name1: ALPHA-CMI	Dec: +05 13 35.50 (5.22653d)	Proper Motion Dec: -1.0229 arcsec/yr	B-V = 0.42
		Alt Name2: HR2943	Equinox: J2000	Parallax: 0.283"	
				Epoch of Position: 1995.18	
	Comments: Coords are for center of gravity of binary. Accuracy confirmed by 2000 Nov 28 WFPC2 observations. 6/14/06: updated to ICRS system using galex website.				
	Reference Frame: ICRS				

Proposal 12673 - Visit 01 - HST Observations of Astrophysically Important Visual Binaries

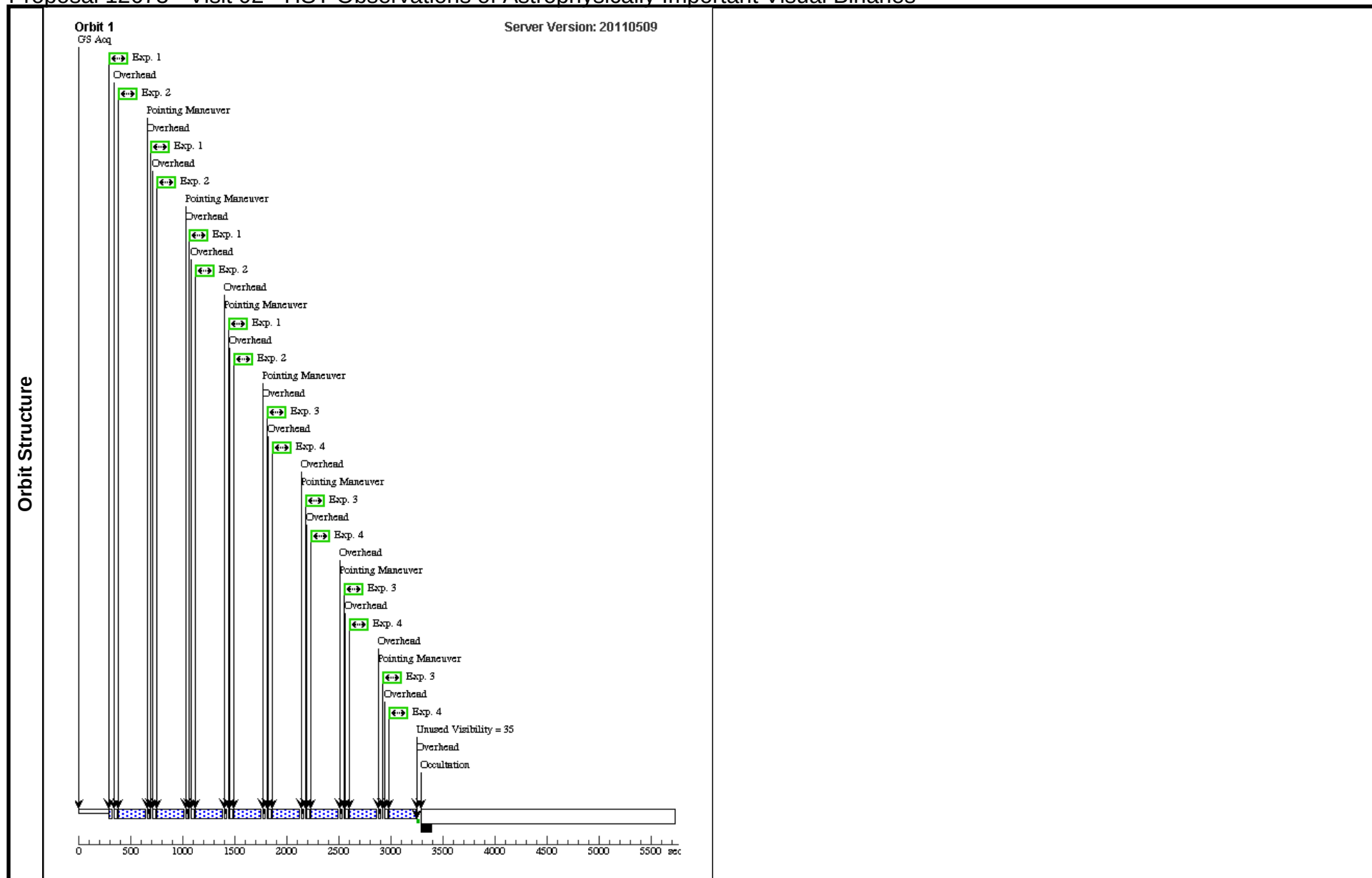
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) PROCYON	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F953N	CR-SPLIT=NO		Pattern 1, Exps 1-1 i n Visit 01 (1)	38 Secs X 4	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 2, Copy 1)]	
									[==>(Pattern 2, Copy 2)]	
									[==>(Pattern 2, Copy 3)]	
									[==>(Pattern 2, Copy 4)]	
									[==>(Pattern 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
Exposures	2		(1) PROCYON	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F953N	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 01 (1)	38 Secs X 4	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 2, Copy 1)]	
									[==>(Pattern 2, Copy 2)]	
									[==>(Pattern 2, Copy 3)]	
									[==>(Pattern 2, Copy 4)]	
									[==>(Pattern 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	



Proposal 12673 - Visit 02 - HST Observations of Astrophysically Important Visual Binaries

Visit	Proposal 12673, Visit 02, implementation						Thu Jul 21 01:33:36 GMT 2011			
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: WFC3/UVIS									
	Special Requirements: GYRO MODE 3GOBAD; SCHED 50%; ORIENT 61.8D TO 118.2 D; ORIENT 151.8D TO 159 D; ORIENT 201D TO 208.2 D; ORIENT 241.8D TO 298.2 D; ORIENT 21D TO 28.2 D; BETWEEN 01-DEC-2011:00:00:00 AND 15-FEB-2012:00:00:00 Comments: ORIENT requirement is done so that companion star will not lie near diffraction spikes or charge bleeding of primary star.									
Patterns	#	Primary Pattern			Secondary Pattern			Exposures		
	(1)	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=true			(1-2), (3-4)		
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(2)	MU-CAS	RA: 01 08 16.3700 (17.0682083d)		Proper Motion RA: 0.3972 sec of time/yr		V=5.15+/-0.0		Reference Frame: ICRS	
		Alt Name1: HR321	Dec: +54 55 13.20 (54.92033d)		Proper Motion Dec: -1.596 arcsec/yr		B-V = 0.70			
		Alt Name2: HD6582	Equinox: J2000		Parallax: 0.134" Epoch of Position: 2000.0					
Comments: Coordinate accuracy confirmed by 2000-01 WFPC2 observations. 6/14/06: updated to ICRS system using galex website.										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) MU-CAS	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	CR-SPLIT=NO		Pattern 1, Exps 1-2 in Visit 02 (1)	1.5 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2		(2) MU-CAS	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	CR-SPLIT=NO		Pattern 1, Exps 1-2 in Visit 02 (1)	265 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	3		(2) MU-CAS	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	CR-SPLIT=NO		Pattern 1, Exps 3-4 in Visit 02 (1)	1.5 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	4		(2) MU-CAS	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F225W	CR-SPLIT=NO		Pattern 1, Exps 3-4 in Visit 02 (1)	265 Secs	
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	

Proposal 12673 - Visit 02 - HST Observations of Astrophysically Important Visual Binaries

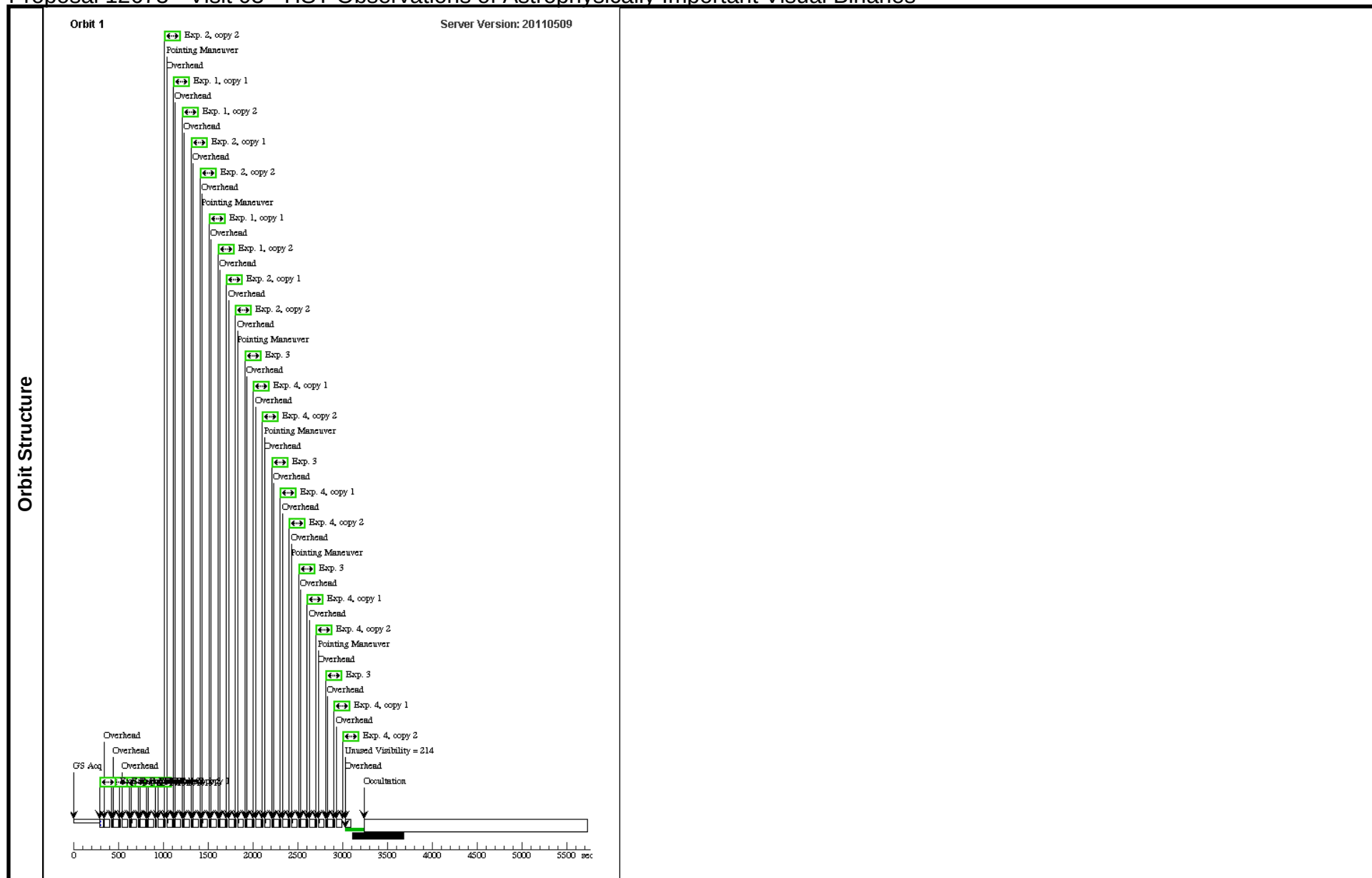


Proposal 12673 - Visit 03 - HST Observations of Astrophysically Important Visual Binaries

Visit	Proposal 12673, Visit 03, implementation Thu Jul 21 01:33:37 GMT 2011				
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: GYRO MODE 3GOBAD; ORIENT 179.3D TO 212.5 D; ORIENT 228.5D TO 261.7 D; ORIENT 269.3D TO 351.7 D; ORIENT 359.3D TO 32.5 D; BEFORE 15-OCT-2011:00:00:00 Comments: ORIENT requirement is done so that companion star will not lie near diffraction spikes or charge bleeding from the very bright primary star.				
Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(1)	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=true	(1-2), (3-4)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
	(3)	SIRIUS Alt Name1: ALPHA-CMA Alt Name2: HR2491	RA: 06 45 8.6600 (101.2860833d) Dec: -16 43 8.20 (-16.71894d) Equinox: J2000	Proper Motion RA: -0.038011 sec of time/yr Proper Motion Dec: -1.22308 arcsec/yr Parallax: 0.379" Epoch of Position: 2008.007	V=-1.47 Reference Frame: ICRS
Comments: Coordinates are for center of mass of the Sirius A-B binary, determined from a WFPC2 observation in January 2008.					

Proposal 12673 - Visit 03 - HST Observations of Astrophysically Important Visual Binaries

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) SIRIUS	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F953N	CR-SPLIT=NO		Pattern 1, Exps 1-2 i n Visit 03 (1)	6 Secs X 2	
									[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)]	[1]
	2		(3) SIRIUS	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F953N	CR-SPLIT=NO		Pattern 1, Exps 1-2 i n Visit 03 (1)	12 Secs X 2	
									[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)]	[1]
	3		(3) SIRIUS	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F953N	CR-SPLIT=NO		Pattern 1, Exps 3-4 i n Visit 03 (1)	6 Secs	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	4		(3) SIRIUS	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F953N	CR-SPLIT=NO		Pattern 1, Exps 3-4 i n Visit 03 (1)	12 Secs X 2	
									[==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)]	[1]

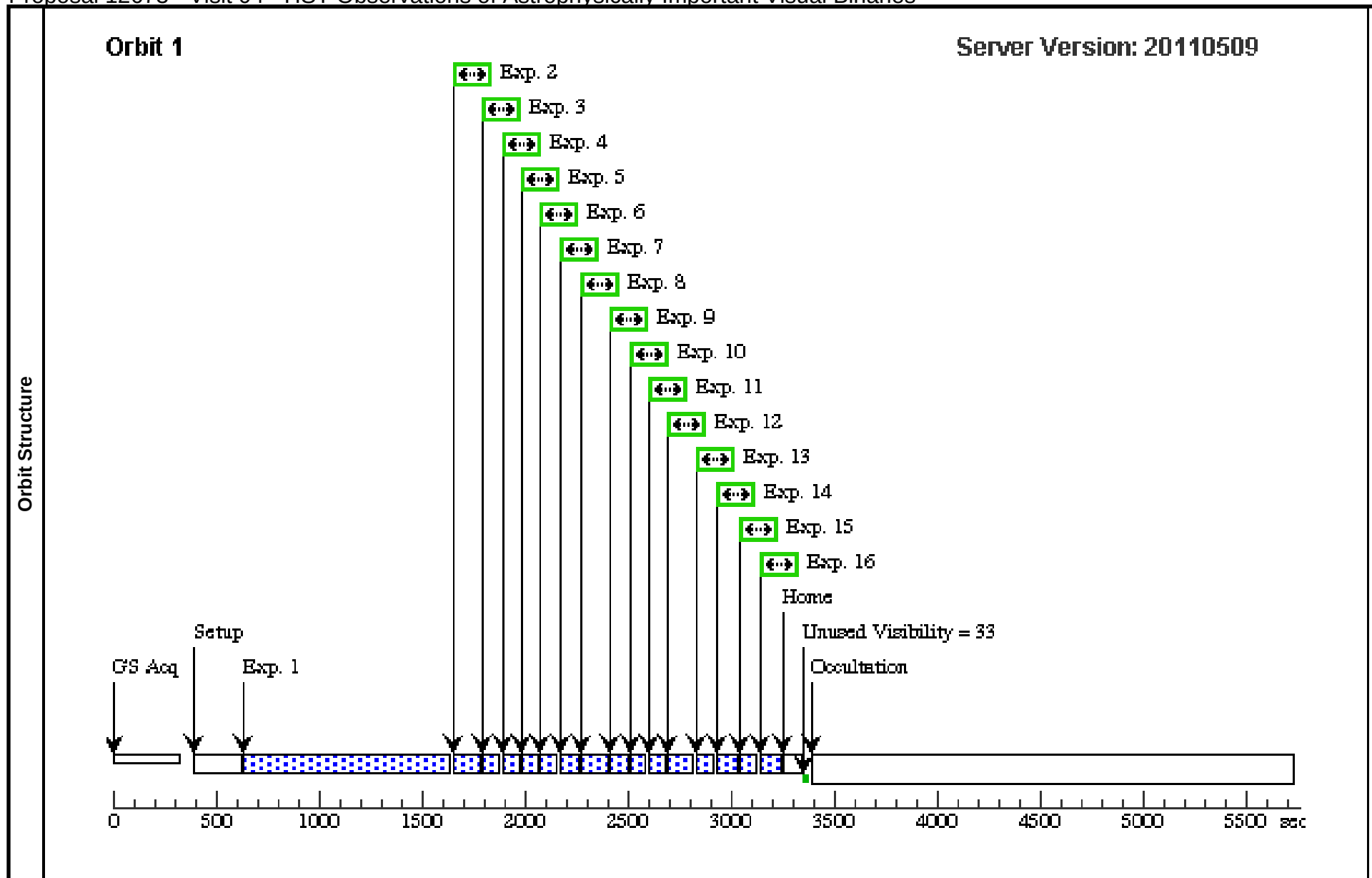


Proposal 12673 - Visit 04 - HST Observations of Astrophysically Important Visual Binaries

Visit	Proposal 12673, Visit 04, implementation					Thu Jul 21 01:33:37 GMT 2011
	Diagnostic Status: No Diagnostics					
	Scientific Instruments: FGS					
	Special Requirements: GYRO MODE 3GOBAD; ORIENT 110.D TO 110.0 D; BETWEEN 28-MAR-2012:00:00:00 AND 07-APR-2012:00:00:00					
	Comments: Maximum parallax factors April 10, October 11. This ORIENT can schedule up to April 6, and results in a favorable projection of the G107-70 components (PA ~ 272 degrees) in the FGS frame.					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(4)	G107-70	RA: 07 30 47.2300 (112.6967917d) Dec: +48 10 26.60 (48.17406d) Equinox: J2000	Proper Motion RA: -0.022 sec of time/yr Proper Motion Dec: -1.271 arcsec/yr Parallax: 0.09" Epoch of Position: 2000.0	V=15.5+/-0.1	Reference Frame: ICRS
	Comments: double degenerate binary system, separation ~0.6"					
	(5)	G107-69	RA: 07 30 42.5700 (112.6773750d) Dec: +48 11 58.80 (48.19967d) Equinox: J2000	Proper Motion RA: -0.022 sec of time/yr Proper Motion Dec: -1.272 arcsec/yr Parallax: 0.09" Epoch of Position: 2000	V=13.6+/-0.1	Reference Frame: ICRS
	Comments: CPM companion to G107-70, ~1 arcmin distant					
	(6)	G107-70-REF2	RA: 07 30 26.6900 (112.6112083d) Dec: +48 11 1.64 (48.18379d) Equinox: J2000		V=13.3+/-0.1	Reference Frame: ICRS
	(7)	G107-70-REF3	RA: 07 31 9.7700 (112.7907083d) Dec: +48 10 27.41 (48.17428d) Equinox: J2000		V=14.3+/-0.1	Reference Frame: ICRS
	(8)	G107-70-REF4	RA: 07 30 57.1700 (112.7382083d) Dec: +48 08 36.71 (48.14353d) Equinox: J2000		V=12.2+/-0.1	Reference Frame: ICRS
	(9)	G107-70-REF6	RA: 07 30 34.9200 (112.6455000d) Dec: +48 10 31.22 (48.17534d) Equinox: J2000		V=14.3+/-0.1	Reference Frame: ICRS
	(10)	G107-70-REF7	RA: 07 31 0.3100 (112.7512917d) Dec: +48 10 16.07 (48.17113d) Equinox: J2000		V=14.9	Reference Frame: ICRS
	(11)	G107-70-REF9	RA: 07 30 15.0300 (112.5626250d) Dec: +48 10 19.67 (48.17213d) Equinox: J2000		V=12.9	Reference Frame: ICRS

Proposal 12673 - Visit 04 - HST Observations of Astrophysically Important Visual Binaries

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) G107-70	FGS, TRANS, 1	F583W	SCANS=15; STEP-SIZE=0.8	POS TARG 0.0,-30.0; GS ACQ SCENARIO BASE1B3	Sequence 1-16 Non-Int in Visit 04	715.0 Secs [==>]	[1]
	2		(4) G107-70	FGS, POS, 1	F583W	FES-TIME=0.4	SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	3		(5) G107-69	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	4		(11) G107-70-REF9	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	5		(8) G107-70-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	6		(7) G107-70-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	7		(5) G107-69	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	8		(4) G107-70	FGS, POS, 1	F583W	FES-TIME=0.4	SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	9		(9) G107-70-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	10		(6) G107-70-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	11		(8) G107-70-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	12		(4) G107-70	FGS, POS, 1	F583W	FES-TIME=0.4	SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	13		(5) G107-69	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	14		(10) G107-70-REF7	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	15		(7) G107-70-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]
	16		(11) G107-70-REF9	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-16 Non-Int in Visit 04	7 Secs [==>]	[1]



Proposal 12673 - Visit 05 - HST Observations of Astrophysically Important Visual Binaries

Visit	Proposal 12673, Visit 05, implementation Diagnostic Status: No Diagnostics Scientific Instruments: FGS Special Requirements: ORIENT 74.0D TO 76.0 D; BETWEEN 18-SEP-2011:00:00:00 AND 30-SEP-2011:00:00:00					Thu Jul 21 01:33:38 GMT 2011
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(12)	WD1818+126	RA: 18 20 30.8800 (275.1286667d) Dec: +12 39 17.70 (12.65492d) Equinox: J2000	Proper Motion RA: 0.007 sec of time/yr Proper Motion Dec: 0.271 arcsec/yr Parallax: 0" Epoch of Position: 2000.0	V=16.06+/-0.1	Reference Frame: HST CYCLE 10 PROPOSAL
	<i>Comments: maximum parallax factor occurs Sep 29 and March 29</i>					
	(13)	WD1818-REF1 Alt Name1: GSC1018.02189	RA: 18 20 23.6700 (275.0986250d) Dec: +12 39 43.80 (12.66217d) Equinox: J2000	Parallax: 0"	V=10.92+/-0.2	Reference Frame: ICRS
	(14)	WD1818-REF2 Alt Name1: GSC1018.02278	RA: 18 20 26.3600 (275.1098333d) Dec: +12 39 25.20 (12.65700d) Equinox: J2000	Parallax: 0"	V=12.7+/-0.2	Reference Frame: ICRS
	(15)	WD1818-REF3 Alt Name1: GSC1018.01251	RA: 18 20 31.9700 (275.1332083d) Dec: +12 38 48.12 (12.64670d) Equinox: J2000	Parallax: 0"	V=12.97+/-0.2	Reference Frame: ICRS
	(16)	WD1818-REF4 Alt Name1: N020230030828	RA: 18 20 33.8600 (275.1410833d) Dec: +12 39 5.56 (12.65154d) Equinox: J2000	Parallax: 0"	V=14.23+/-0.2	Reference Frame: ICRS
	<i>Comments: position and magnitude from GSC2, using Kriss & Stys color transformations.</i>					
	(18)	WD1818-REF6 Alt Name1: N020230031910	RA: 18 20 33.6100 (275.1400417d) Dec: +12 40 16.29 (12.67119d) Equinox: J2000	Parallax: 0"	V=14.43+/-0.3	Reference Frame: ICRS
	<i>Comments: position and magnitude from GSC2, using Kriss & Stys color transformation</i>					

Proposal 12673 - Visit 05 - HST Observations of Astrophysically Important Visual Binaries

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	1	(12) WD1818+126	FGS, TRANS, 1	F583W	STEP-SIZE=0.6; SCANS=20	POS TARG 0.0,0.0; GS ACQ SCENARI O BASE1B3	Sequence 1-11 Non-I nt in Visit 05	830.0 Secs [==>]	[1]
	2	2	(12) WD1818+126	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	30.0 Secs [==>]	[1]
	3	3	(13) WD1818-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	20.0 Secs [==>]	[1]
	4	4	(16) WD1818-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	20.0 Secs [==>]	[1]
	5	5	(15) WD1818-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	20.0 Secs [==>]	[1]
	6	6	(14) WD1818-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	20.0 Secs [==>]	[1]
	7	7	(12) WD1818+126	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	30.0 Secs [==>]	[1]
	8	8	(18) WD1818-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	20.0 Secs [==>]	[1]
	9	10	(16) WD1818-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	20.0 Secs [==>]	[1]
	10	11	(12) WD1818+126	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	30.0 Secs [==>]	[1]
	11	12	(13) WD1818-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-11 Non-I nt in Visit 05	20.0 Secs [==>]	[1]

