



## 15815 - Resolving massive binaries with STIS

Cycle: 27, Proposal Category: GO

(Availability Mode: SUPPORTED)

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
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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) ZETA-ORI-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:19.0	yes
02	(2) IOTA-ORI WAVE	STIS/CCD	1	09-Dec-2022 11:00:22.0	yes
03	(3) 15-MON-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:24.0	yes
04	(4) TAU-CMA-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:26.0	yes
05	(5) THETA1-ORI-CACB WAVE	STIS/CCD	1	09-Dec-2022 11:00:29.0	yes
06	(6) HD-206267-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:31.0	yes
07	(7) HD-193322-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:33.0	yes

Proposal 15815 (STScI Edit Number: 24, Created: Friday, December 9, 2022 at 11:01:08 AM Eastern Standard Time) - Overview

<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>
08	(8) HD-193443-AB WAVE	STIS/CCD	1	09-Dec-2022 11:00:35.0	yes
09	(9) HD-16429-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:37.0	yes
10	(10) IU-AUR-AB WAVE	STIS/CCD	1	09-Dec-2022 11:00:39.0	yes
11	(2) IOTA-ORI WAVE	STIS/CCD	1	09-Dec-2022 11:00:42.0	yes
12	(4) TAU-CMA-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:44.0	yes
Z3	(4) TAU-CMA-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:46.0	yes
13	(3) 15-MON-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:48.0	yes
14	(5) THETA1-ORI-CACB WAVE	STIS/CCD	1	09-Dec-2022 11:00:51.0	yes
15	(5) THETA1-ORI-CACB WAVE	STIS/CCD	1	09-Dec-2022 11:00:53.0	yes
16	(5) THETA1-ORI-CACB WAVE	STIS/CCD	1	09-Dec-2022 11:00:55.0	yes
17	(7) HD-193322-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:57.0	yes
18	(7) HD-193322-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:00:59.0	yes
19	(9) HD-16429-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:01:01.0	yes
20	(9) HD-16429-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:01:03.0	yes
21	(8) HD-193443-AB WAVE	STIS/CCD	1	09-Dec-2022 11:01:06.0	yes
22	(3) 15-MON-AAAB WAVE	STIS/CCD	1	09-Dec-2022 11:01:08.0	yes

23 Total Orbits Used

## **ABSTRACT**

Multiplicity is an endemic disease among massive stars that simultaneously hampers their study and offers new opportunities to discover their properties. We propose using STIS to obtain spatially resolved spectroscopy of ten of the brightest O-type close visual multiple systems for the first time ever. We will obtain separate spectral classifications, measure their relative radial velocities, place tighter constraints on their orbital parameters, and in some cases provide alternative distance measurements. For five systems we ask for additional epochs in the next two cycles to follow them along their visual/spectroscopic orbits. Therefore, this program will significantly increase our knowledge of these fundamental systems. These observations can only be done with HST, as the systems are too close to use lucky spectroscopy to spatially separate them from the ground.

## **OBSERVING DESCRIPTION**

Multiplicity is an endemic disease among massive stars that simultaneously hampers their study and offers new opportunities to discover their properties. We propose using STIS to obtain spatially resolved spectroscopy of ten of the brightest O-type close visual multiple systems for the first time ever. We will obtain separate spectral classifications, measure their relative radial velocities, place tighter constraints on their orbital parameters, and in some cases provide alternative distance measurements. For five systems we ask for additional epochs in the next two cycles to follow them along their visual/spectroscopic orbits. Therefore, this program will significantly increase our knowledge of these fundamental systems. These observations can only be done with HST, as the systems are too close to use lucky spectroscopy to spatially separate them from the ground.

Proposal 15815 - Visit 01 - Resolving massive binaries with STIS

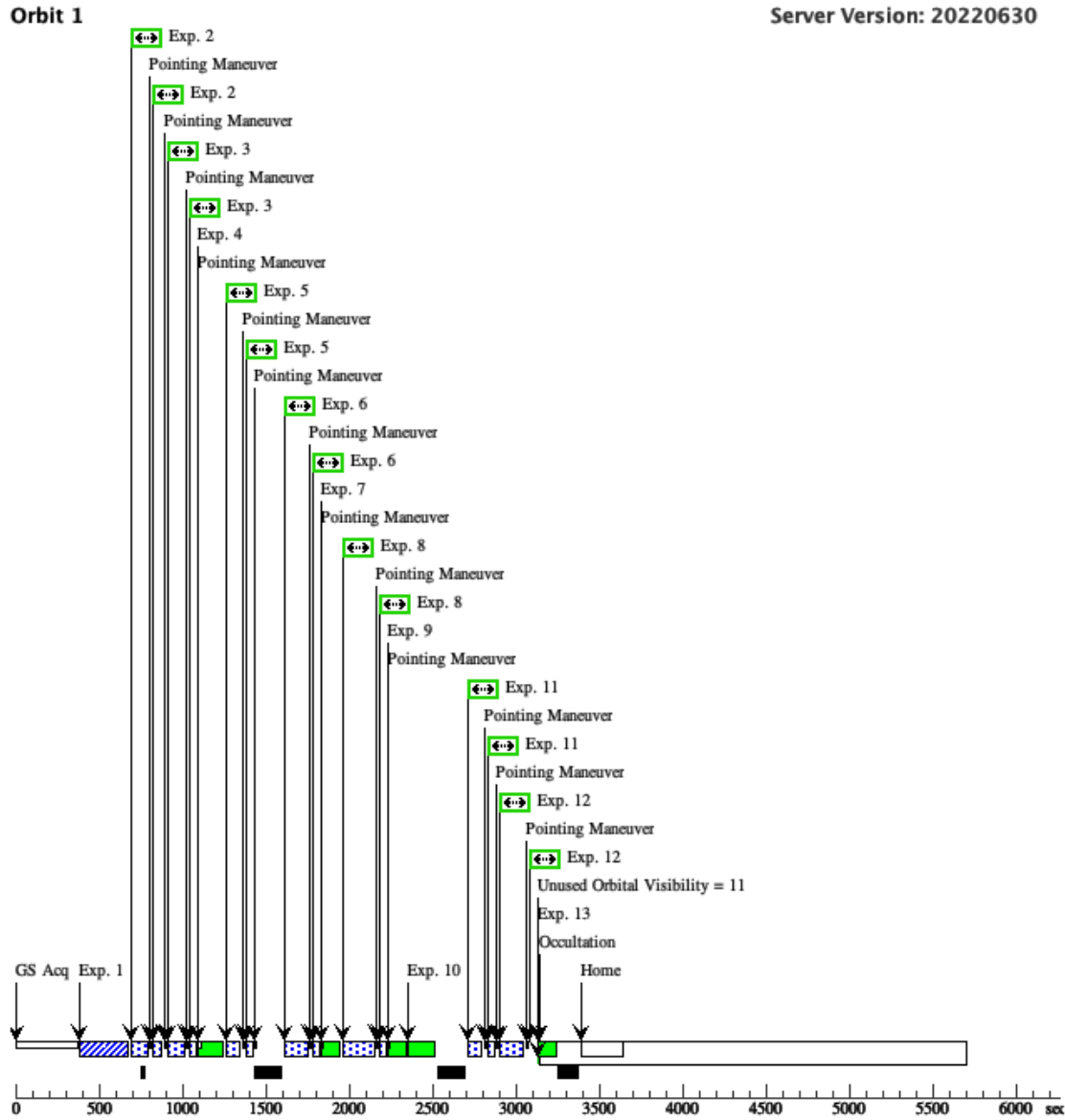
Fri Dec 09 16:01:08 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 01, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 325D TO 329 D; BEFORE 01-JAN-2020:00:00:00 Comments: Orientation around 1 Dec 2019: 284+45 = 329 (companion above). Fast motion (7.4 year period). To be reobserved once in cycle 28 (visit 11) and once in cycle 29 (visit 12).					
	<b>Patterns</b>	#	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(5), (6), (8), (11), (12)	
	(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false		(2), (3)	
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(1)	ZETA-ORI-AAAB	RA: 05 40 45.5270 (85.1896958d) Dec: -01 56 33.26 (-1.94257d) Equinox: J2000		V=(?) B=1.9	Reference Frame: ICRS
	Comments: ETC IDs: STIS.ta.1377828, STIS.im.1377829, STIS.sp.1377831 Category=STAR Description=[SUPERGIANT O] Extended=NO					

Proposal 15815 - Visit 01 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) ZETA-ORI-AAA B	STIS/CCD, ACQ, F25ND5	MIRROR		GS ACQ SCENARI O BASE1B3		1 Secs (1 Secs)	
									[==>]	[1]
	2		(1) ZETA-ORI-AAA B	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4		Pattern 2, Exps 2-2 i n Visit 01 (2)	17 Secs (34 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	3		(1) ZETA-ORI-AAA B	STIS/CCD, ACCUM, F25ND5	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 3-3 i n Visit 01 (2)	2 Secs (4 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	5		(1) ZETA-ORI-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 5-5 i n Visit 01 (1)	0.2 Secs (0.4 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
6		(1) ZETA-ORI-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 6-6 i n Visit 01 (1)	0.2 Secs (0.4 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
7		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
8		(1) ZETA-ORI-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 i n Visit 01 (1)	0.2 Secs (0.4 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(1) ZETA-ORI-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 01 (1)	0.2 Secs (0.4 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
12		(1) ZETA-ORI-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 01 (1)	0.2 Secs (0.4 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 02 - Resolving massive binaries with STIS

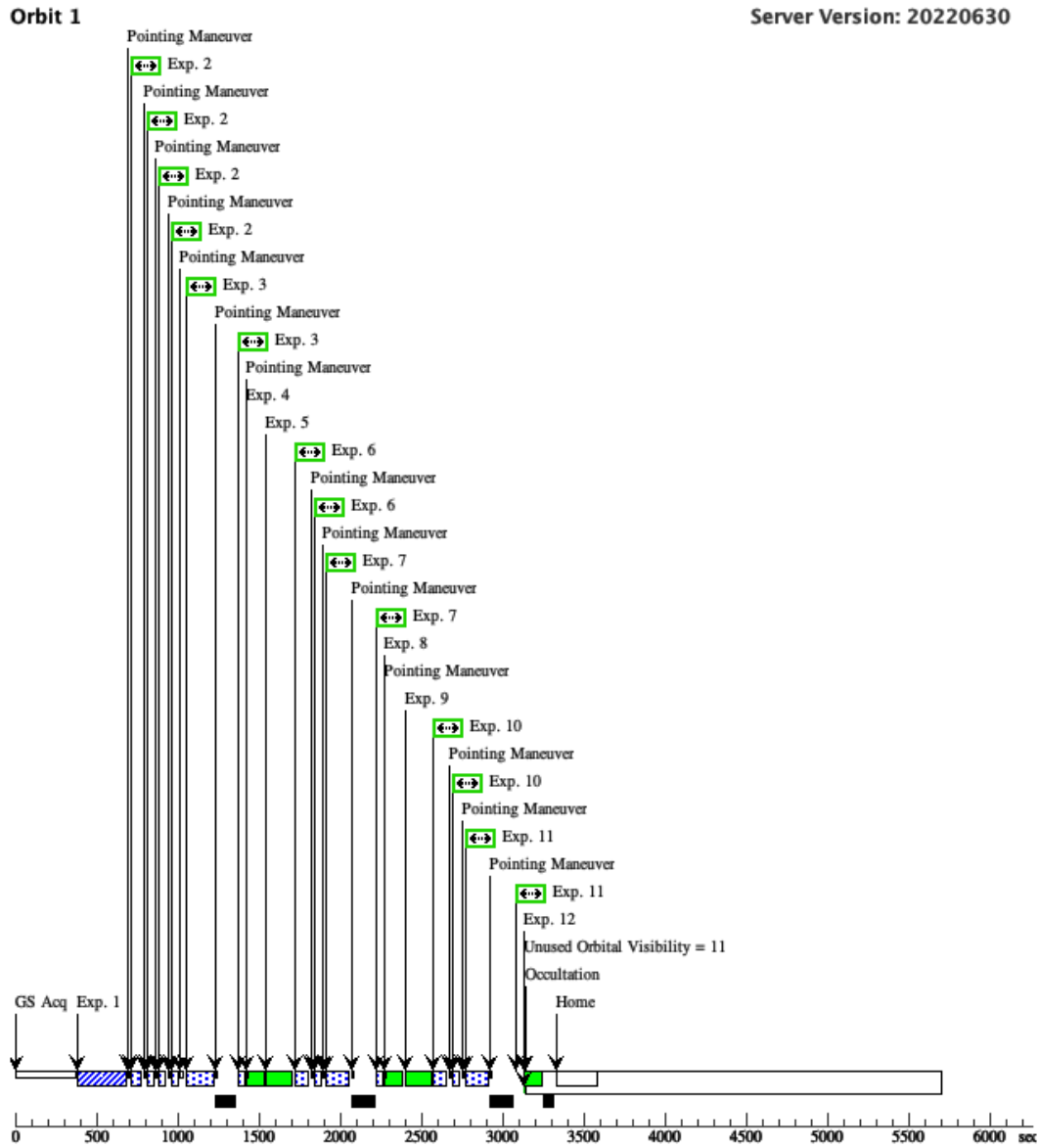
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 02, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 323D TO 329 D; BEFORE 01-JAN-2020:00:00:00 Comments: Orientation: 104+45+180 = 329 (companion below). Slow motion (>1 century period).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(3), (6), (7), (10), (11)	
	(3)	Pattern Type=STIS-CCD-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.567 Line Spacing=0.567	Coordinate Frame=POS-TARG Pattern Orientation=26.6 Angle Between Sides=143.130102 Center Pattern=false		(2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(2)	IOTA-ORI	RA: 05 35 25.9810 (83.8582542d) Dec: -05 54 35.64 (-5.90990d) Equinox: J2000		V=(?) B=2.6	Reference Frame: ICRS
	Comments: Category=STAR Description=[GIANT O] Extended=NO					

Proposal 15815 - Visit 02 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) IOTA-ORI	STIS/CCD, ACQ, F25ND5	MIRROR		GS ACQ SCENARI O BASE1B3		2 Secs (2 Secs)	
									[==>]	[1]
	2		(2) IOTA-ORI	STIS/CCD, ACCUM, F25ND5	MIRROR	CR-SPLIT=NO		Pattern 3, Exps 2-2 i n Visit 02 (3)	4 Secs (16 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	
									[==>(Pattern 3)]	[1]
									[==>(Pattern 4)]	
	3		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 i n Visit 02 (1)	0.4 Secs (0.8 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
6		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 6-6 i n Visit 02 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
7		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 02 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
10		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 10-1 0 in Visit 02 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
11		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 02 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 03 - Resolving massive binaries with STIS

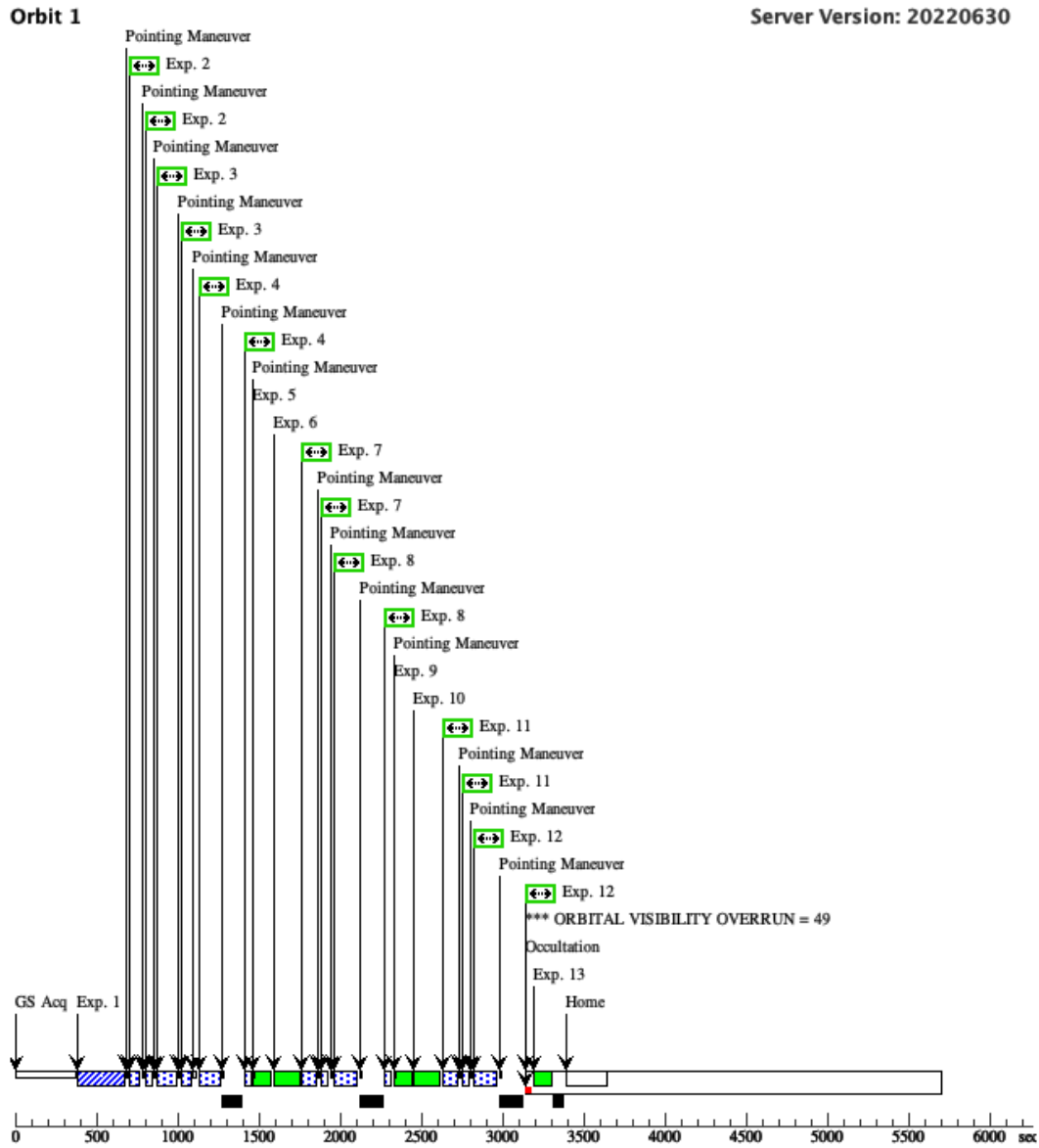
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 03, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 314D TO 314 D; BEFORE 01-JAN-2020:00:00:00 <i>Comments: Orientation around 1 Dec 2019: 269+45 = 314 (companion above). Slow motion (~1 century period). To be reobserved once in cycle 29 (visit 13).</i>					
	<b>Diagnosics</b> (Visit 03) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>		
	(1)	Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                  Center Pattern=false Line Spacing=		(4), (7), (8), (11), (12)		
	(2)	Pattern Type=LINE                      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=45 Number Of Points=2                  Angle Between Sides= Point Spacing=0.3535                  Center Pattern=false Line Spacing=		(2), (3)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(3)	15-MON-AAAB	RA: 06 40 58.6560 (100.2444000d) Dec: +09 53 44.71 (9.89575d) Equinox: J2000		V=(?) B=4.6	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[MAIN SEQUENCE O] Extended=NO						

Proposal 15815 - Visit 03 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) 15-MON-AAAB	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1B3		0.4 Secs (0.4 Secs)	
									[==>]	[1]
	2		(3) 15-MON-AAAB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-2 i n Visit 03 (2)	0.1 Secs (0.2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4		Pattern 2, Exps 3-3 i n Visit 03 (2)	20 Secs (40 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	4		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 4-4 i n Visit 03 (1)	2.5 Secs (5 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
7		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 03 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
8		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 i n Visit 03 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 03 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
12		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 03 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 04 - Resolving massive binaries with STIS

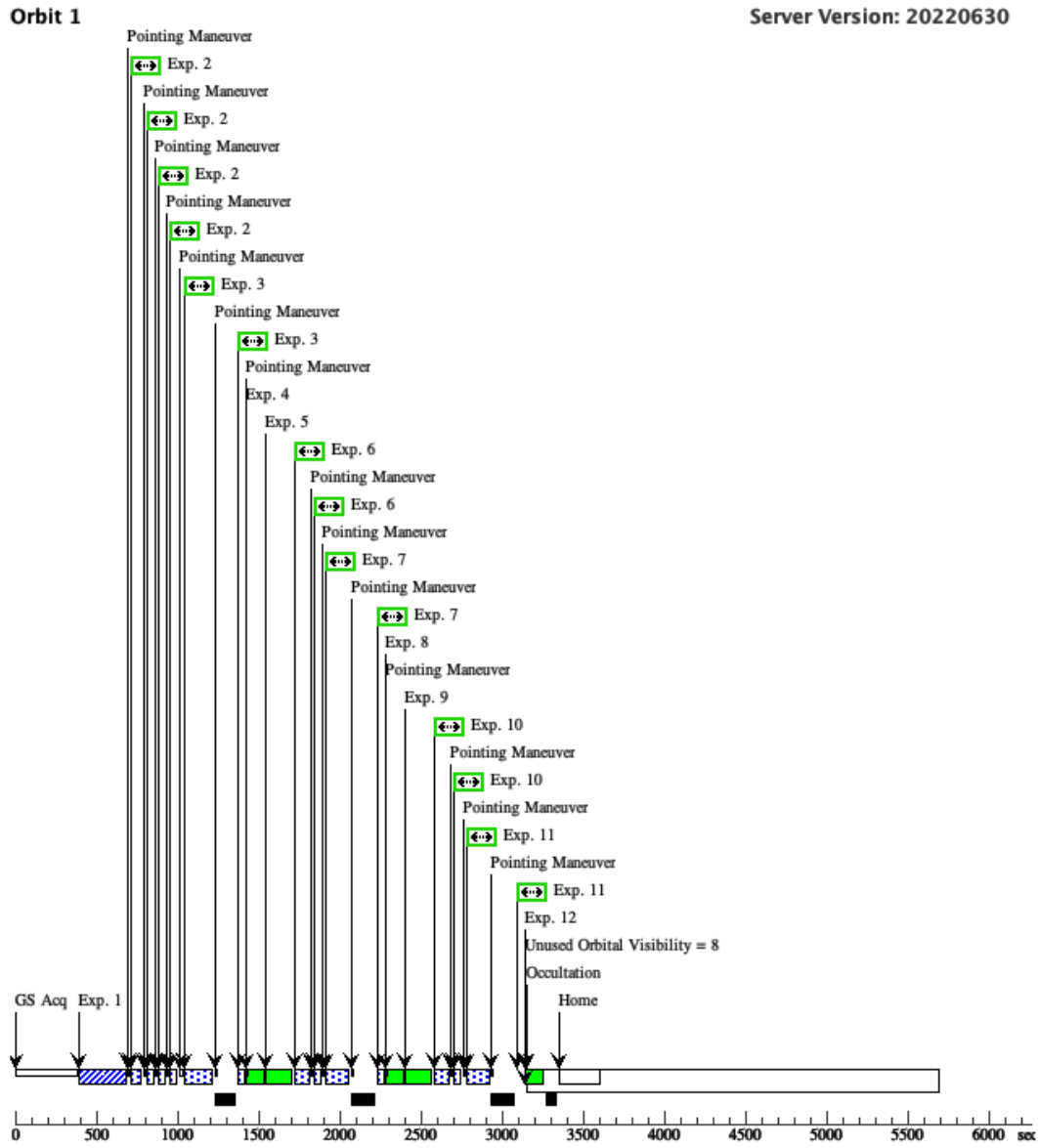
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 04, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 355D TO 355 D; BEFORE 01-JUL-2020:00:00:00 Comments: Orientation around 1 Dec 2019: 310+45 = 355 (companion above). Slow motion (>1 century period).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(3), (6), (7), (10), (11)	
	(3)	Pattern Type=STIS-CCD-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.567 Line Spacing=0.567	Coordinate Frame=POS-TARG Pattern Orientation=26.6 Angle Between Sides=143.130102 Center Pattern=false		(2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(4)	TAU-CMA-AAAB	RA: 07 18 42.4870 (109.6770292d) Dec: -24 57 15.78 (-24.95438d) Equinox: J2000		V=(?) B=4.8	Reference Frame: ICRS
	Comments: Category=STAR Description=[GIANT O] Extended=NO					

Proposal 15815 - Visit 04 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) TAU-CMA-AAA B	STIS/CCD, ACQ, F25ND3	MIRROR				0.5 Secs (0.5 Secs)	
									[==>]	[1]
	2		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 3, Exps 2-2 i n Visit 04 (3)	0.1 Secs (0.4 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	
									[==>(Pattern 3)]	[1]
									[==>(Pattern 4)]	
	3		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 i n Visit 04 (1)	3 Secs (6 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
6		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 6-6 i n Visit 04 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
7		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 04 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
10		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 10-1 0 in Visit 04 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
11		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 04 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



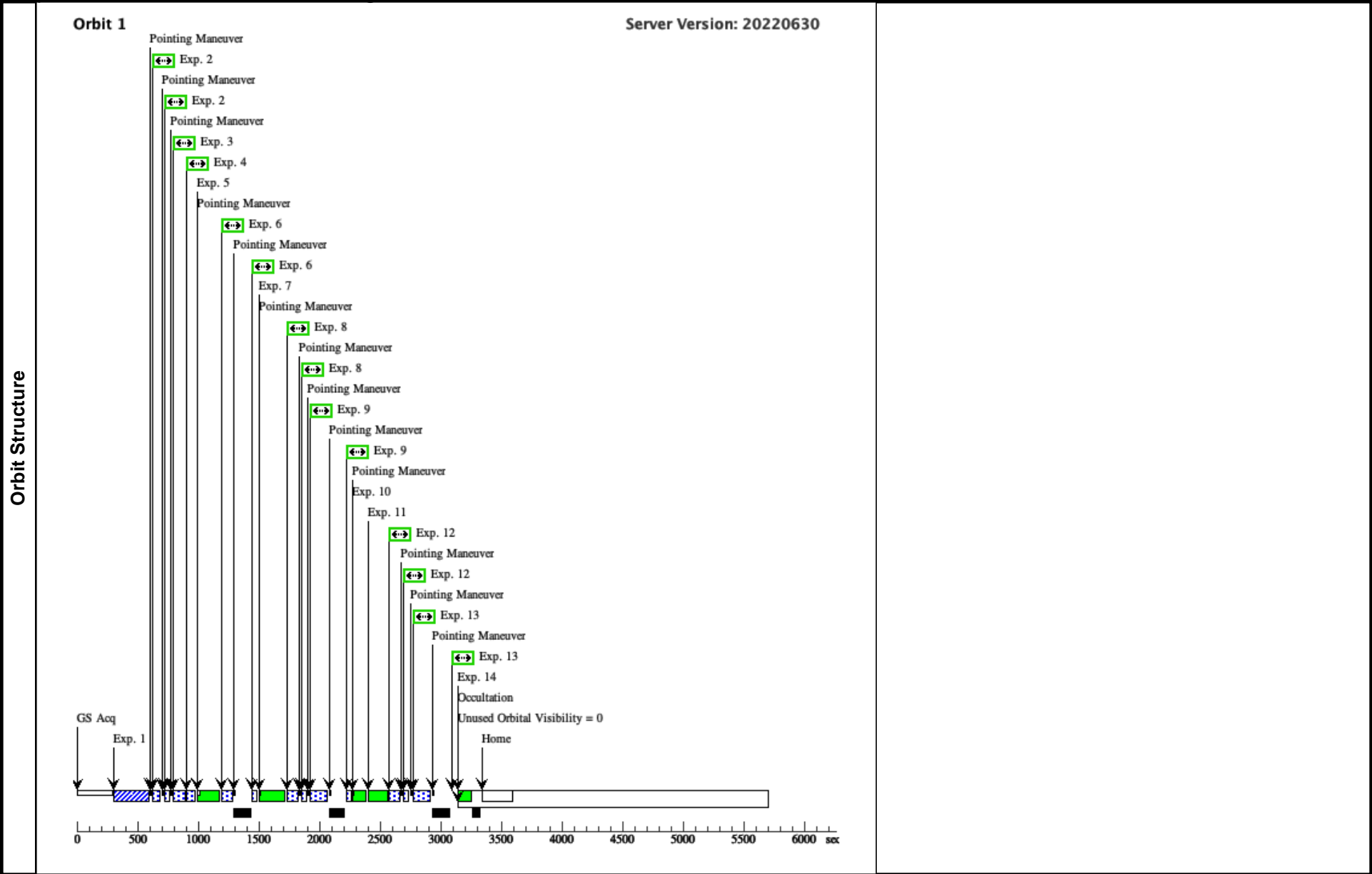
# Proposal 15815 - Visit 05 - Resolving massive binaries with STIS

Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 05, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 86D TO 86 D; BETWEEN 01-FEB-2021:00:00:00 AND 03-FEB-2021:00:00:00 <i>Comments: Orientation around 01 Feb 2021: 221+45-180 = 86 (companion below). Fast motion (11.3 year period). Cannot be observed before mid 2020 because of low separation of the binary components using the orbit of Balega et al. (2015). To be reobserved once more in cycle 28 (visit 14) and twice in cycle 29 (visit 15 and 16). Visits 05 and 14 are separated by the half period of Lehmann et al. (2010).</i>					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                  Center Pattern=false Line Spacing=		(6), (8), (9), (12), (13)		
(2)	Pattern Type=LINE                      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=45 Number Of Points=2                  Angle Between Sides= Point Spacing=0.3535                  Center Pattern=false Line Spacing=		(2)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(5)	THETA1-ORI-CACB	RA: 05 35 16.4630 (83.8185958d) Dec: -05 23 23.18 (-5.38977d) Equinox: J2000		V=(?) B=5.2	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[MAIN SEQUENCE O] Extended=NO						

Proposal 15815 - Visit 05 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(5) THETA1-ORI-C ACB	STIS/CCD, ACQ, F25ND3	MIRROR			GS ACQ SCENARI O SINGLE		0.5 Secs (0.5 Secs)	[1]
	2	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO			Pattern 2, Exps 2-2 i n Visit 05 (2)	0.2 Secs (0.4 Secs)	[1]
	3	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4				4 Secs (4 Secs)	[1]
	4	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4				35 Secs (35 Secs)	[1]
	5	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A						[1]
	6	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 6-6 i n Visit 05 (1)	3.5 Secs (7 Secs)	[1]
	7	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A						[1]
	8	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 8-8 i n Visit 05 (1)	3.5 Secs (7 Secs)	[1]
	9	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 9-9 i n Visit 05 (1)	3.5 Secs (7 Secs)	[1]
	10	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A						[1]
	11	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A						[1]
	12	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 12-1 2 in Visit 05 (1)	3.5 Secs (7 Secs)	[1]
	13	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 13-1 3 in Visit 05 (1)	3.5 Secs (7 Secs)	[1]
14	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A						[1]	



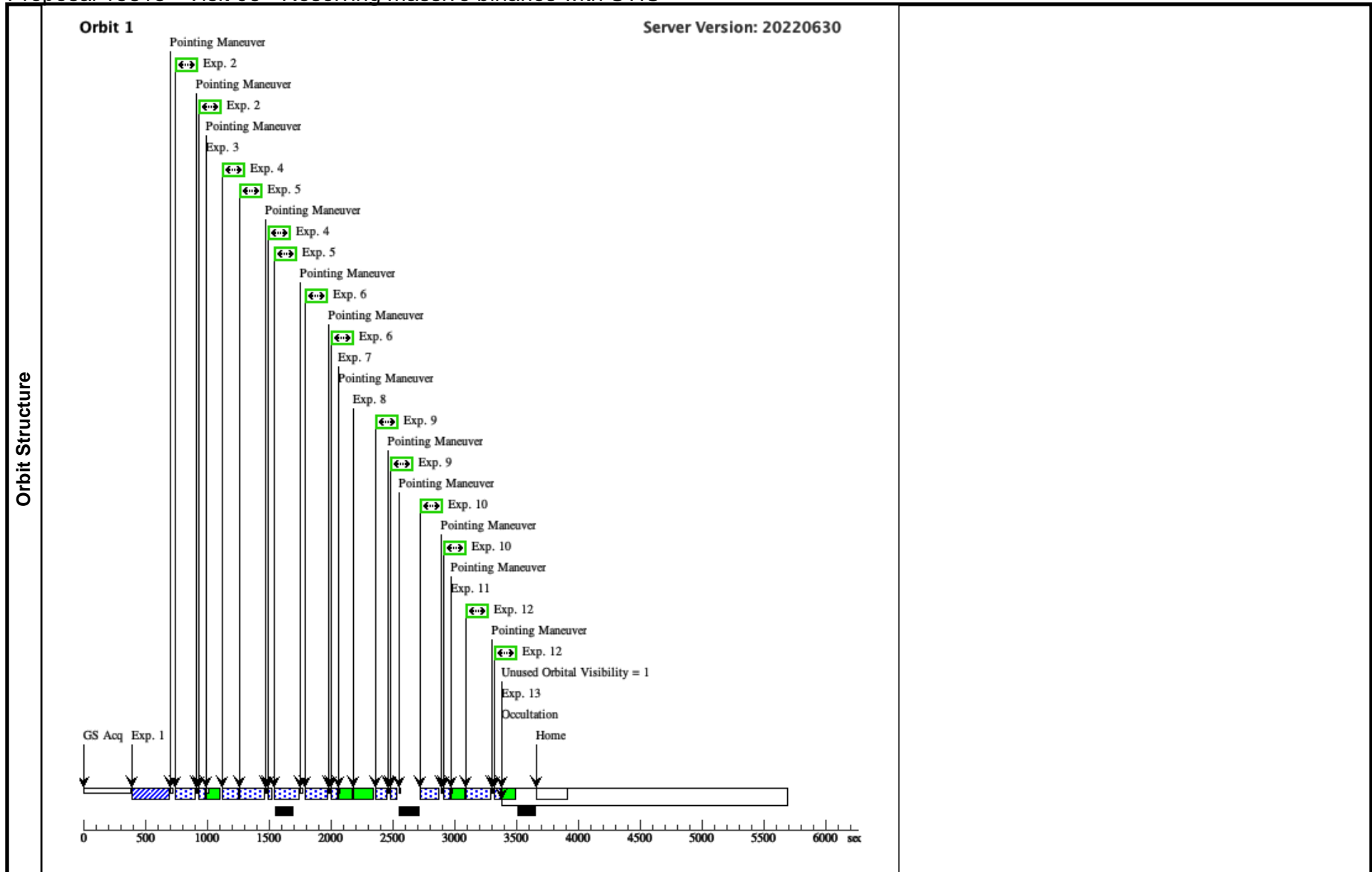
Proposal 15815 - Visit 06 - Resolving massive binaries with STIS

Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 06, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 60D TO 60 D; BEFORE 01-JAN-2020:00:00:00 Comments: Orientation around 15 Dec 2019: 195+45-180 = 60 (companion below). Slow motion (>1 century period).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(2), (6), (9), (10), (12)	
	(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false		(4-5)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(6)	HD-206267-AAAB	RA: 21 38 57.6180 (324.7400750d) Dec: +57 29 20.55 (57.48904d) Equinox: J2000		V=(?) B=6.2	Reference Frame: ICRS
	Comments: Category=STAR Description=[MAIN SEQUENCE O] Extended=NO					

Proposal 15815 - Visit 06 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) HD-206267-AA AB	STIS/CCD, ACQ, F25ND3	MIRROR				1.5 Secs (1.5 Secs)	
									[==>]	[1]
	2		(6) HD-206267-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 2-2 i n Visit 06 (1)	10 Secs (20 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	3		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	4		(6) HD-206267-AA AB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO; GAIN=4		Pattern 2, Exps 4-5 i n Visit 06 (2)	0.4 Secs (0.8 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	5		(6) HD-206267-AA AB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO; GAIN=4		Pattern 2, Exps 4-5 i n Visit 06 (2)	163 Secs (326 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
6		(6) HD-206267-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 6-6 i n Visit 06 (1)	10 Secs (20 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
7		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		(6) HD-206267-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 9-9 i n Visit 06 (1)	10 Secs (20 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
10		(6) HD-206267-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 10-1 0 in Visit 06 (1)	10 Secs (20 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
11		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
12		(6) HD-206267-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 06 (1)	10 Secs (20 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	



# Proposal 15815 - Visit 07 - Resolving massive binaries with STIS

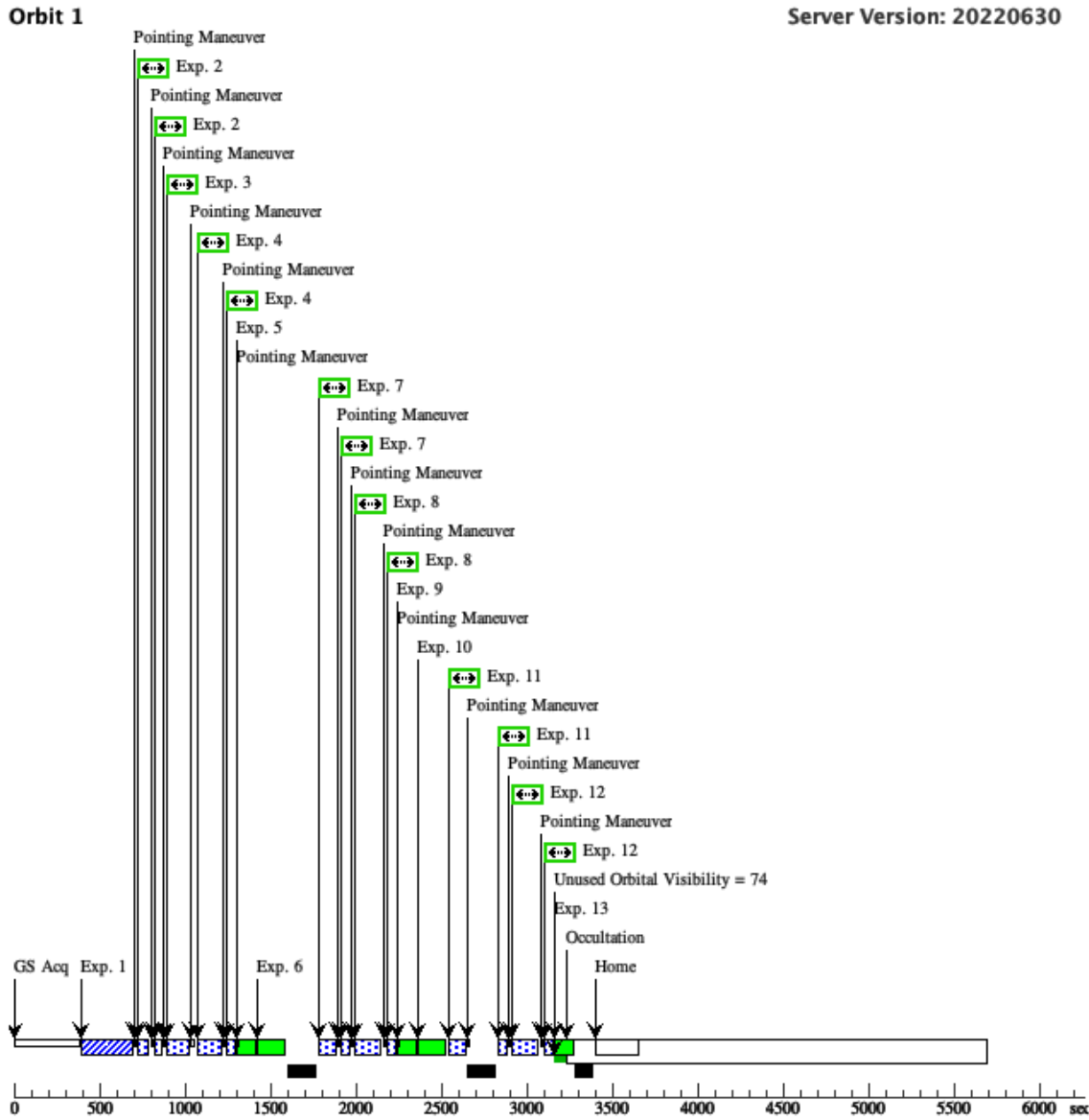
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 07, failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 20D TO 20 D; BEFORE 01-JUL-2020:00:00:00 Comments: Orientation around 01 Jan 2020: 155+45-180 = 20 (companion below). Fast motion (44 year period). To be reobserved once in cycle 28 and once in cycle 29.					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                  Center Pattern=false Line Spacing=		(2), (4), (7), (8), (11), (12)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(7)	HD-193322-AAAB	RA: 20 18 6.9900 (304.5291250d) Dec: +40 43 55.46 (40.73207d) Equinox: J2000		V=(?) B=6.8	Reference Frame: ICRS
Comments: Category=STAR Description=[GIANT O] Extended=NO						

Proposal 15815 - Visit 07 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) HD-193322-AA AB	STIS/CCD, ACQ, F25ND3	MIRROR				2 Secs (2 Secs)	
									[==>]	[1]
	2		(7) HD-193322-AA AB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 07 (1)	1 Secs (2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	3		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4			30 Secs (30 Secs)	
									[==>]	[1]
	4		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 4-4 i n Visit 07 (1)	12 Secs (24 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]
7		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 07 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
8		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 i n Visit 07 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 07 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
12		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 07 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 08 - Resolving massive binaries with STIS

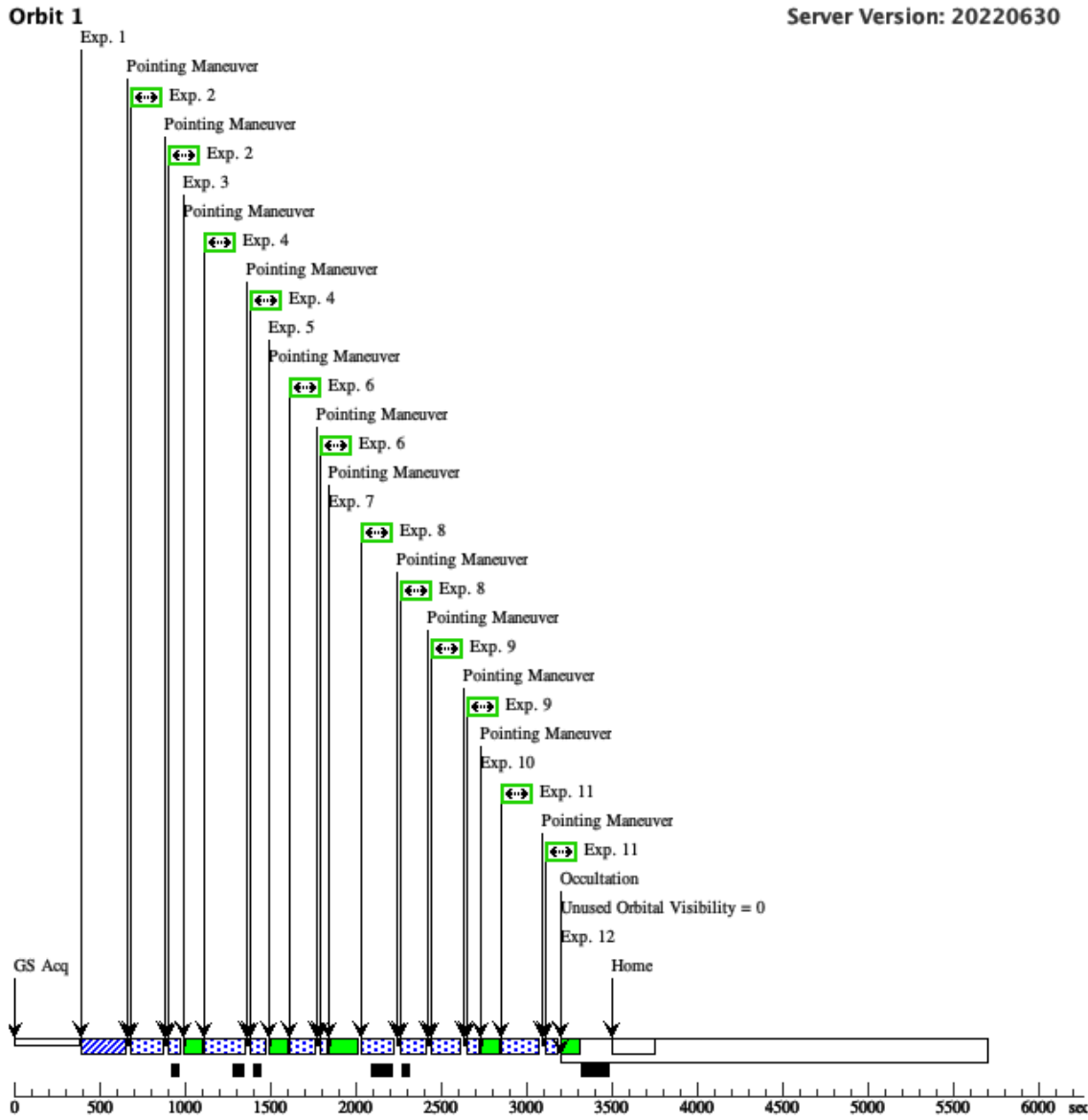
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 08, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 115D TO 115 D; BEFORE 01-JAN-2020:00:00:00 Comments: Orientation around 1 Oct 2019: 250+45-180 = 115 (companion below). Slow motion (>1 century period).																
	<b>Patterns</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>                     Pattern Type=STIS-ALONG-SLIT                      Purpose=DITHER                      Number Of Points=2                      Point Spacing=0.025                      Line Spacing=                 </td> <td>                     Coordinate Frame=POS-TARG                      Pattern Orientation=90.0                      Angle Between Sides=                      Center Pattern=false                 </td> <td>(2), (4), (8), (9), (11)</td> </tr> <tr> <td>(2)</td> <td>                     Pattern Type=LINE                      Purpose=DITHER                      Number Of Points=2                      Point Spacing=0.3535                      Line Spacing=                 </td> <td>                     Coordinate Frame=POS-TARG                      Pattern Orientation=45                      Angle Between Sides=                      Center Pattern=false                 </td> <td>(6)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false	(2), (4), (8), (9), (11)	(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false	(6)			
#	Primary Pattern	Secondary Pattern	Exposures														
(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false	(2), (4), (8), (9), (11)														
(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false	(6)														
<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(8)</td> <td>HD-193443-AB</td> <td>                     RA: 20 18 51.7070 (304.7154458d)                      Dec: +38 16 46.50 (38.27958d)                      Equinox: J2000                 </td> <td></td> <td>                     V=(?)                      B=8.3                 </td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> Comments: Category=STAR Description=[GIANT O] Extended=NO	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	HD-193443-AB	RA: 20 18 51.7070 (304.7154458d) Dec: +38 16 46.50 (38.27958d) Equinox: J2000		V=(?) B=8.3	Reference Frame: ICRS				
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous												
(8)	HD-193443-AB	RA: 20 18 51.7070 (304.7154458d) Dec: +38 16 46.50 (38.27958d) Equinox: J2000		V=(?) B=8.3	Reference Frame: ICRS												

Proposal 15815 - Visit 08 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(8) HD-193443-AB	STIS/CCD, ACQ, F28X500II	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 2-2 in Visit 08 (1)	34 Secs (68 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	3		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	4		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 4-4 in Visit 08 (1)	51 Secs (102 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]
	6		(8) HD-193443-AB	STIS/CCD, ACCUM, F28X500II	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 6-6 in Visit 08 (2)	0.7 Secs (1.4 Secs)	
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
7		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
8		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 in Visit 08 (1)	110 Secs (220 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
9		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 9-9 in Visit 08 (1)	34 Secs (68 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 11-11 in Visit 08 (1)	35 Secs (70 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 09 - Resolving massive binaries with STIS

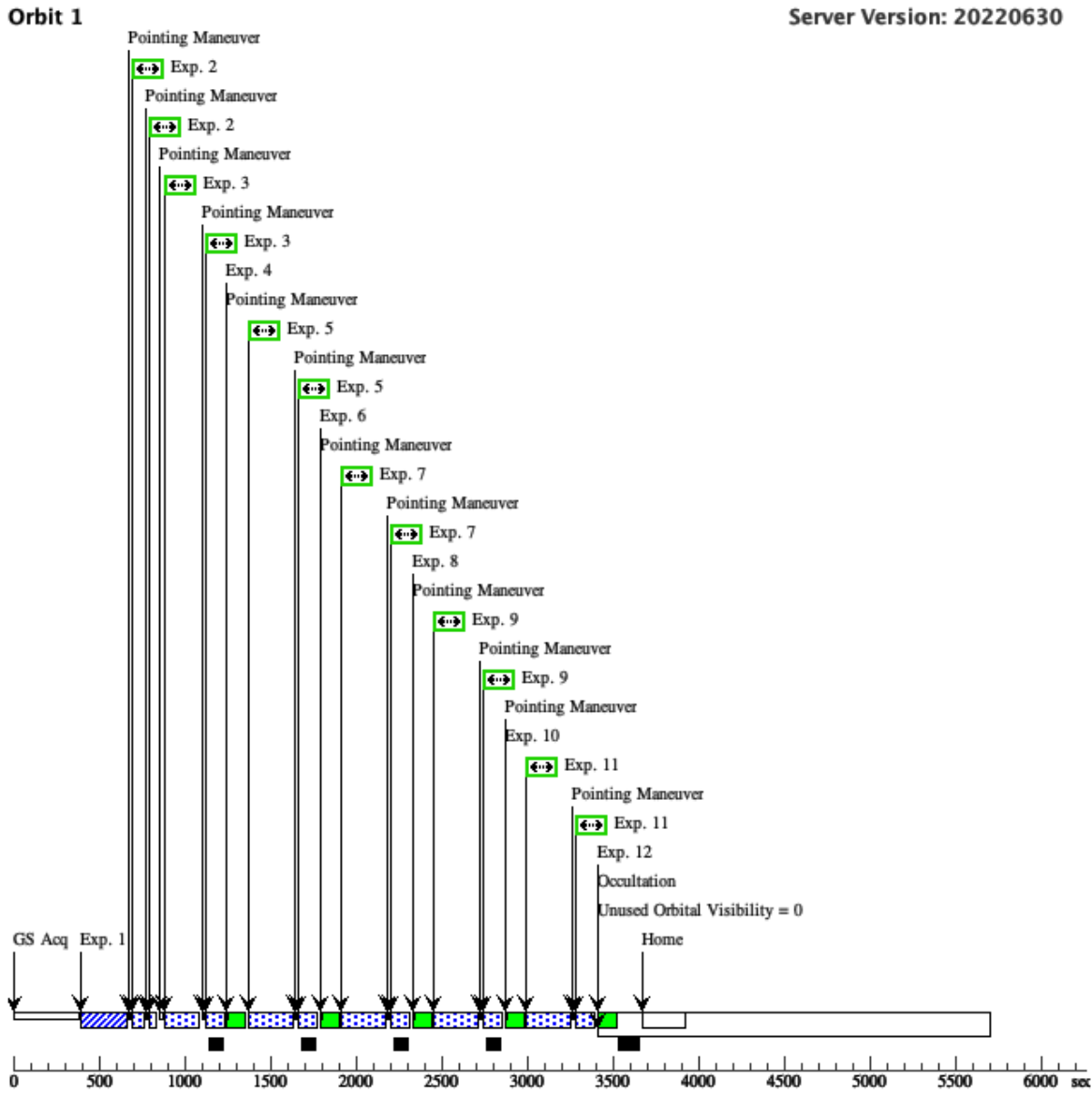
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 09, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 136D TO 136 D; BEFORE 01-JAN-2020:00:00:00 Comments: Orientation around 1 Dec 2019: 91+45 = 136 (companion below). Slow motion (>1 century period). To be reobserved twice in cycle 28.					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
		(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false	(3), (5), (7), (9), (11)	
(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false	(2)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(9)	HD-16429-AAAB	RA: 02 40 44.9510 (40.1872958d) Dec: +61 16 56.04 (61.28223d) Equinox: J2000		V=(?) B=8.5	Reference Frame: ICRS
Comments: Category=STAR Description=[GIANT O] Extended=NO						

Proposal 15815 - Visit 09 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(9) HD-16429-AAA B	STIS/CCD, ACQ, F28X500II	MIRROR				3 Secs (3 Secs)	
									[==>]	[1]
	2		(9) HD-16429-AAA B	STIS/CCD, ACCUM, F28X500II	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-2 in Visit 09 (2)	1 Secs (2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 in Visit 09 (1)	73 Secs (146 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	5		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 5-5 in Visit 09 (1)	73 Secs (146 Secs)	
									[==>(Pattern 1)]	[1]
								[==>(Pattern 2)]	[1]	
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
7		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 in Visit 09 (1)	73 Secs (146 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 9-9 in Visit 09 (1)	73 Secs (146 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-11 in Visit 09 (1)	72 Secs (144 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 10 - Resolving massive binaries with STIS

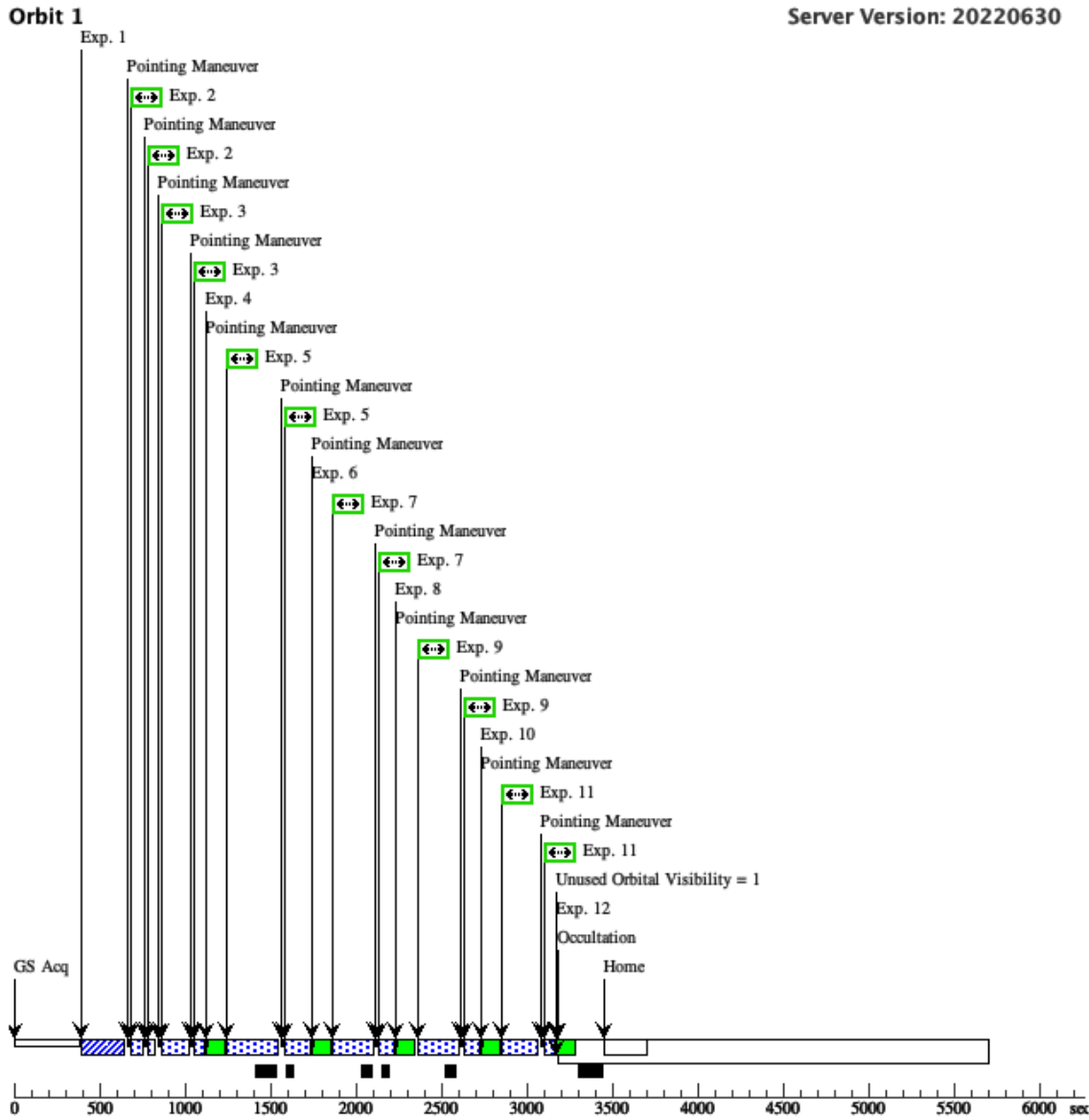
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 10, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 277D TO 277 D; BEFORE 01-JAN-2020:00:00:00 Comments: Orientation around 1 Oct 2019: 232+45 = 277 (companion below). Slow motion (>1 century period).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                  Center Pattern=false Line Spacing=		(3), (5), (7), (9), (11)		
(2)		Pattern Type=LINE                      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=45 Number Of Points=2                  Angle Between Sides= Point Spacing=0.3535                  Center Pattern=false Line Spacing=		(2)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(10)	IU-AUR-AB	RA: 05 27 52.3980 (81.9683250d) Dec: +34 46 58.23 (34.78284d) Equinox: J2000		V=(?) B=8.9	Reference Frame: ICRS
	Comments: Category=STAR Description=[MAIN SEQUENCE O] Extended=NO					

Proposal 15815 - Visit 10 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(10) IU-AUR-AB	STIS/CCD, ACQ, F28X500II	MIRROR				0.1 Secs (0.1 Secs)	
									[==>]	[1]
	2		(10) IU-AUR-AB	STIS/CCD, ACCUM, F28X500II	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-2 in Visit 10 (2)	2 Secs (4 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	3		(10) IU-AUR-AB	STIS/CCD, ACCUM, 52X2	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 3-3 in Visit 10 (1)	24 Secs (48 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	5		(10) IU-AUR-AB	STIS/CCD, ACCUM, 52X2	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 5-5 in Visit 10 (1)	111 Secs (222 Secs)	
									[==>(Pattern 1)]	[1]
								[==>(Pattern 2)]		
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
7		(10) IU-AUR-AB	STIS/CCD, ACCUM, 52X2	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 7-7 in Visit 10 (1)	51 Secs (102 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		(10) IU-AUR-AB	STIS/CCD, ACCUM, 52X2	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 9-9 in Visit 10 (1)	51 Secs (102 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(10) IU-AUR-AB	STIS/CCD, ACCUM, 52X2	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 11-11 in Visit 10 (1)	24 Secs (48 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 11 - Resolving massive binaries with STIS

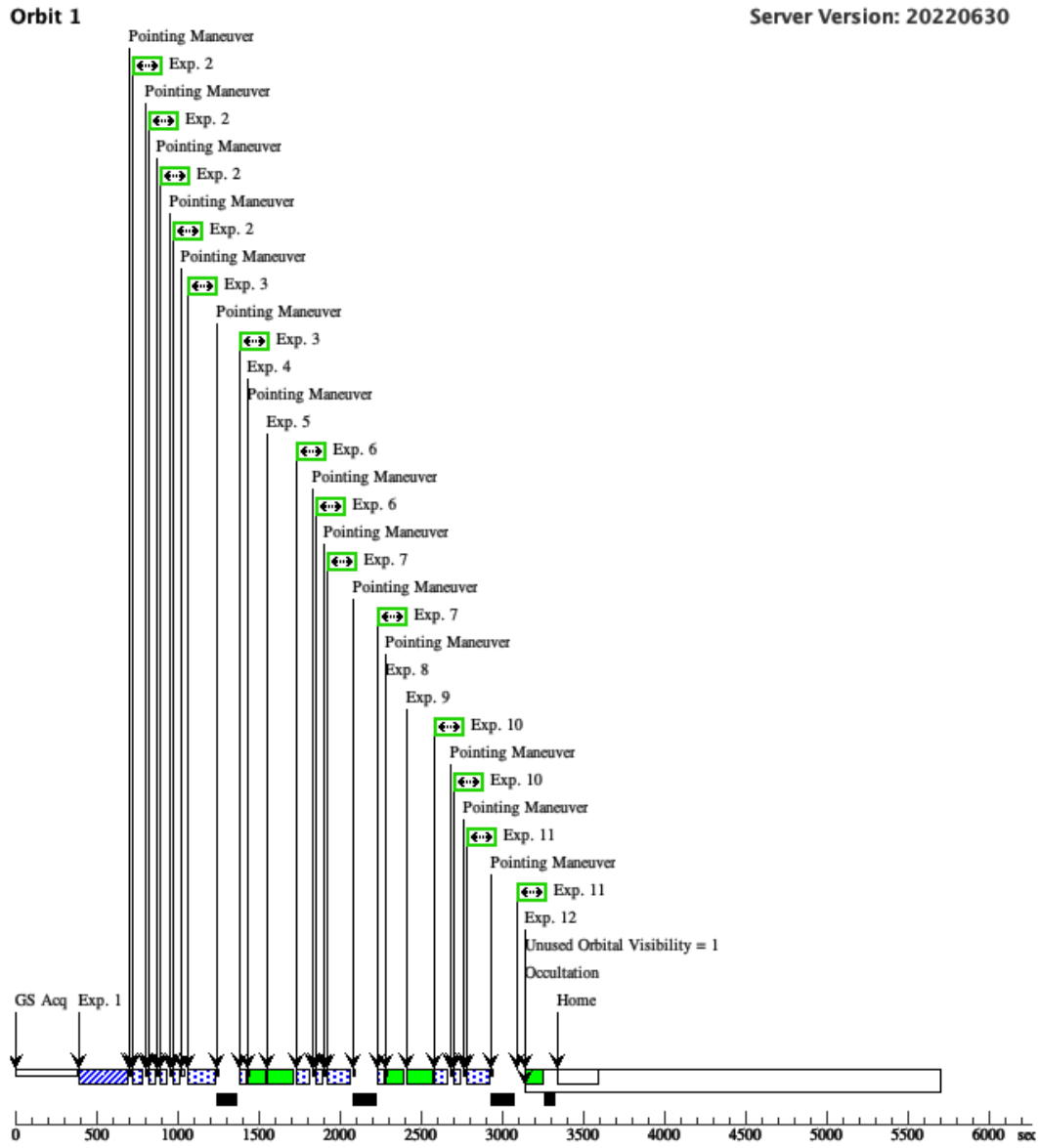
Fri Dec 09 16:01:09 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 11, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 104D TO 194 D; BETWEEN 26-SEP-2021:00:00:00 AND 27-SEP-2021:00:00:00; BETWEEN 25-OCT-2021:00:00:00 AND 26-OCT-2021:00:00:00; BETWEEN 23-NOV-2021:00:00:00 AND 24-NOV-2021:00:00:00; BETWEEN 22-DEC-2021:00:00:00 AND 23-DEC-2021:00:00:00; BETWEEN 20-JAN-2022:12:00:00 AND 21-JAN-2022:12:00:00; BETWEEN 10-SEP-2022:12:00:00 AND 11-SEP-2022:12:00:00; BETWEEN 10-OCT-2022:00:00:00 AND 11-OCT-2022:00:00:00; BETWEEN 07-DEC-2022:00:00:00 AND 08-DEC-2022:00:00:00; BETWEEN 05-JAN-2023:00:00:00 AND 06-JAN-2023:00:00:00; BETWEEN 18-FEB-2022:12:00:00 AND 19-FEB-2022:12:00:00; BETWEEN 19-MAR-2022:12:00:00 AND 20-MAR-2022:12:00:00; BETWEEN 18-APR-2022:00:00:00 AND 19-APR-2022:00:00:00 Comments: Orientation in Spring 2022: 104+45 = 149 (companion above). Slow motion (>1 century period).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(3), (6), (7), (10), (11)	
	(3)	Pattern Type=STIS-CCD-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.567 Line Spacing=0.567	Coordinate Frame=POS-TARG Pattern Orientation=26.6 Angle Between Sides=143.130102 Center Pattern=false		(2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(2)	IOTA-ORI	RA: 05 35 25.9810 (83.8582542d) Dec: -05 54 35.64 (-5.90990d) Equinox: J2000		V=(?) B=2.6	Reference Frame: ICRS
	Comments: Category=STAR Description=[GIANT O] Extended=NO					

Proposal 15815 - Visit 11 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) IOTA-ORI	STIS/CCD, ACQ, F25ND5	MIRROR		GS ACQ SCENARI O BASE1BE		2 Secs (2 Secs)	
									[==>]	[1]
	2		(2) IOTA-ORI	STIS/CCD, ACCUM, F25ND5	MIRROR	CR-SPLIT=NO		Pattern 3, Exps 2-2 i n Visit 11 (3)	4 Secs (16 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	
									[==>(Pattern 3)]	[1]
									[==>(Pattern 4)]	
	3		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 i n Visit 11 (1)	0.4 Secs (0.8 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
6		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 6-6 i n Visit 11 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
7		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 11 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
10		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 10-1 0 in Visit 11 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
11		(2) IOTA-ORI	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 11 (1)	0.4 Secs (0.8 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 12 - Resolving massive binaries with STIS

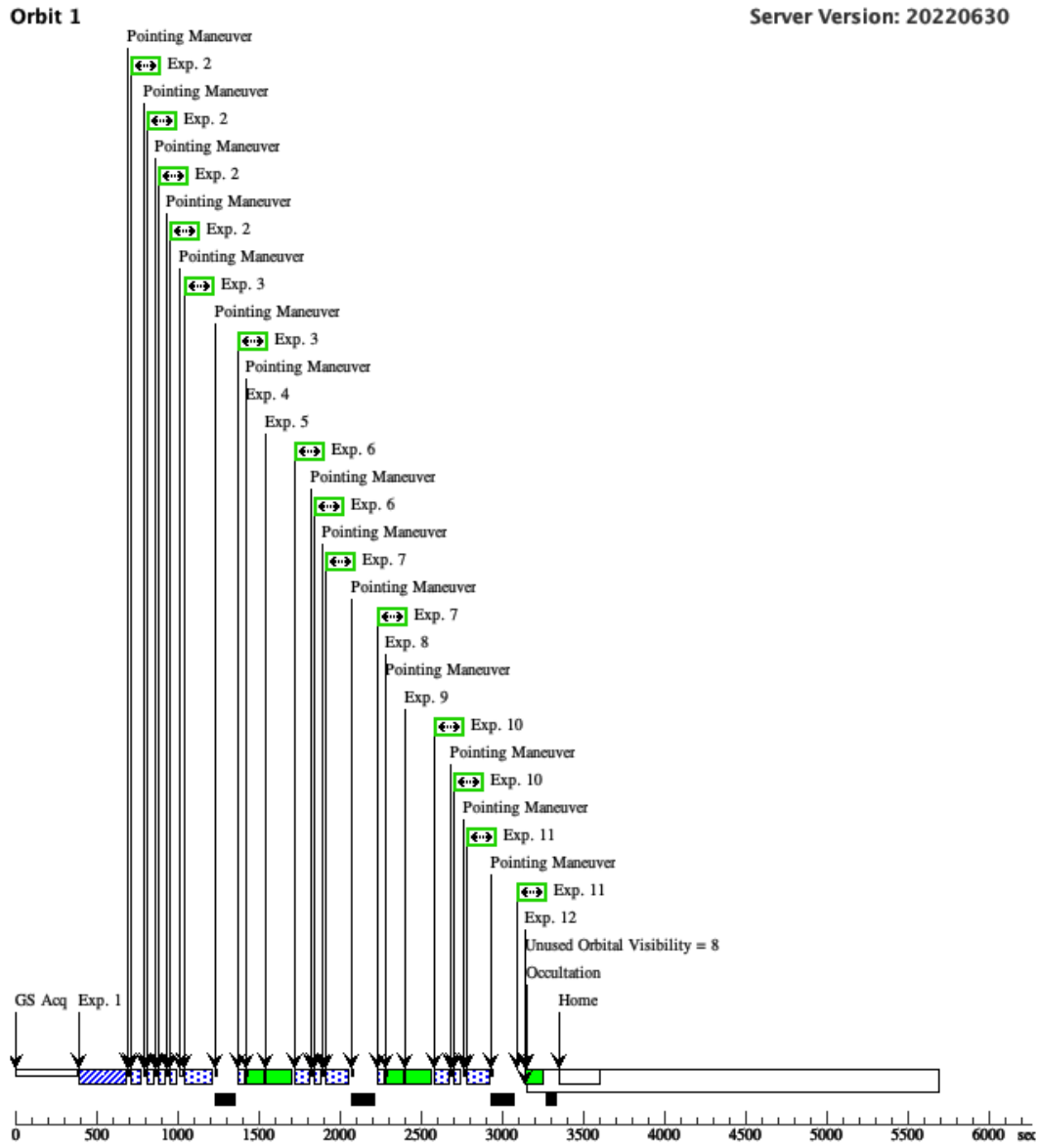
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 12, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 0D TO 20 D; BETWEEN 01-JAN-2021:00:00:00 AND 27-FEB-2021:00:00:00 <i>Comments: Orientation in Winter 2021: 310+45 = 355 (companion above). Slow motion (&gt;1 century period). Semiinteger period from visit 04.</i>					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(3), (6), (7), (10), (11)	
	(3)	Pattern Type=STIS-CCD-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.567 Line Spacing=0.567	Coordinate Frame=POS-TARG Pattern Orientation=26.6 Angle Between Sides=143.130102 Center Pattern=false		(2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(4)	TAU-CMA-AAAB	RA: 07 18 42.4870 (109.6770292d) Dec: -24 57 15.78 (-24.95438d) Equinox: J2000		V=(?) B=4.8	Reference Frame: ICRS
	<i>Comments:</i> Category=STAR Description=[GIANT O] Extended=NO					

Proposal 15815 - Visit 12 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) TAU-CMA-AAA B	STIS/CCD, ACQ, F25ND3	MIRROR				0.5 Secs (0.5 Secs)	
									[==>]	[1]
	2		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 3, Exps 2-2 i n Visit 12 (3)	0.1 Secs (0.4 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	
									[==>(Pattern 3)]	[1]
									[==>(Pattern 4)]	
	3		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 i n Visit 12 (1)	3 Secs (6 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
6		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 6-6 i n Visit 12 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
7		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 12 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
10		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 10-1 0 in Visit 12 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
11		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 12 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



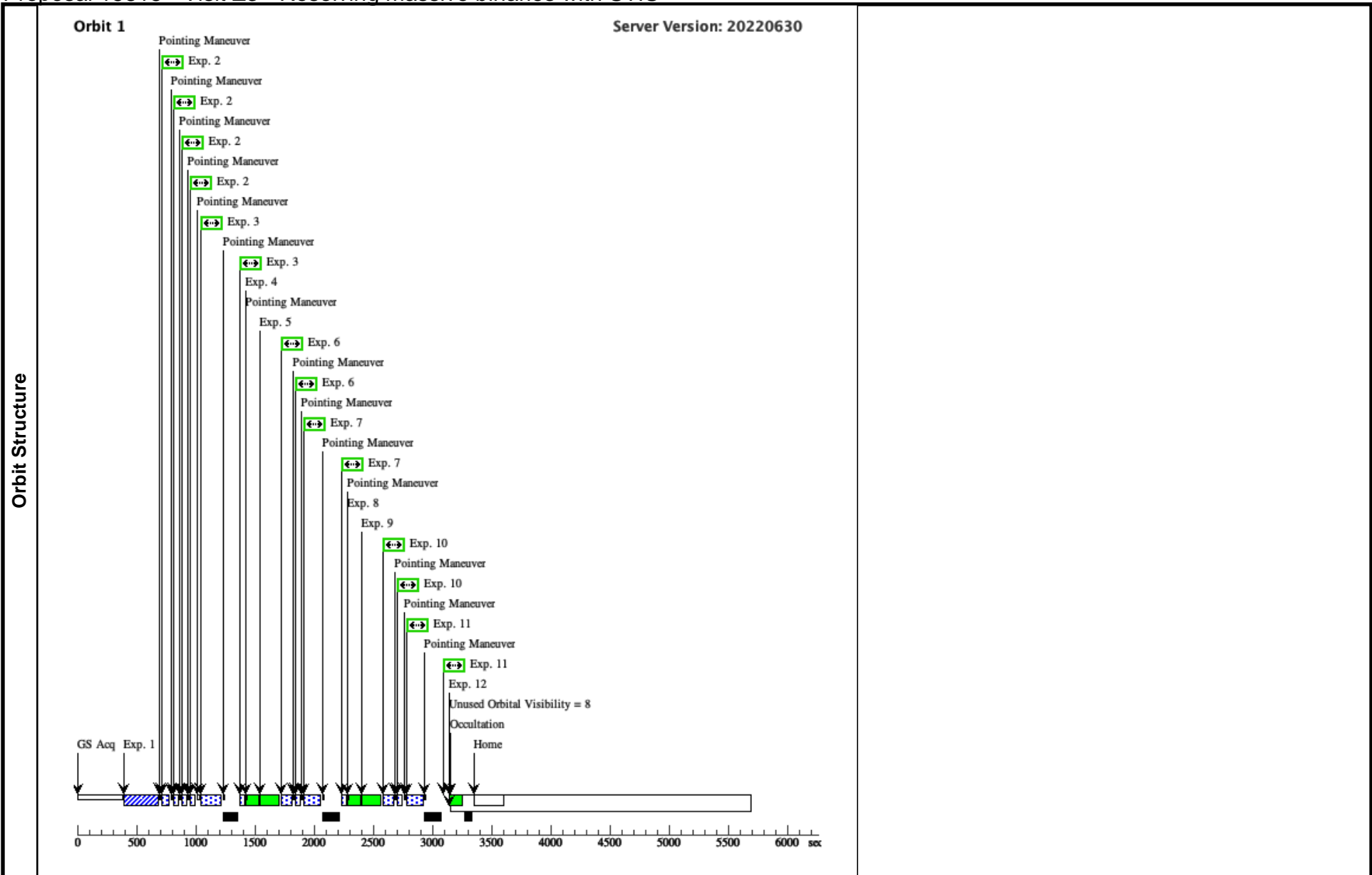
Proposal 15815 - Visit Z3 - Resolving massive binaries with STIS

Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit Z3, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 0D TO 10 D <i>Comments: Orientation in Winter 2023: 310+45 = 355 (companion above). Slow motion (&gt;1 century period).</i>					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                  Center Pattern=false Line Spacing=		(3), (6), (7), (10), (11)		
(3)	Pattern Type=STIS-CCD-BOX      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=26.6 Number Of Points=4                  Angle Between Sides=143.130102 Point Spacing=0.567                  Center Pattern=false Line Spacing=0.567		(2)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(4)	TAU-CMA-AAAB	RA: 07 18 42.4870 (109.6770292d) Dec: -24 57 15.78 (-24.95438d) Equinox: J2000		V=(?) B=4.8	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[GIANT O] Extended=NO						

Proposal 15815 - Visit Z3 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) TAU-CMA-AAA B	STIS/CCD, ACQ, F25ND3	MIRROR				0.5 Secs (0.5 Secs)	
									[==>]	[1]
	2		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 3, Exps 2-2 i n Visit Z3 (3)	0.1 Secs (0.4 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	
									[==>(Pattern 3)]	[1]
									[==>(Pattern 4)]	
	3		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 i n Visit Z3 (1)	3 Secs (6 Secs)	
									[==>(Pattern 1)]	
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
6		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 6-6 i n Visit Z3 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
7		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit Z3 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
10		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 10-1 0 in Visit Z3 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
11		(4) TAU-CMA-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit Z3 (1)	3 Secs (6 Secs)		
								[==>(Pattern 1)]		
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	



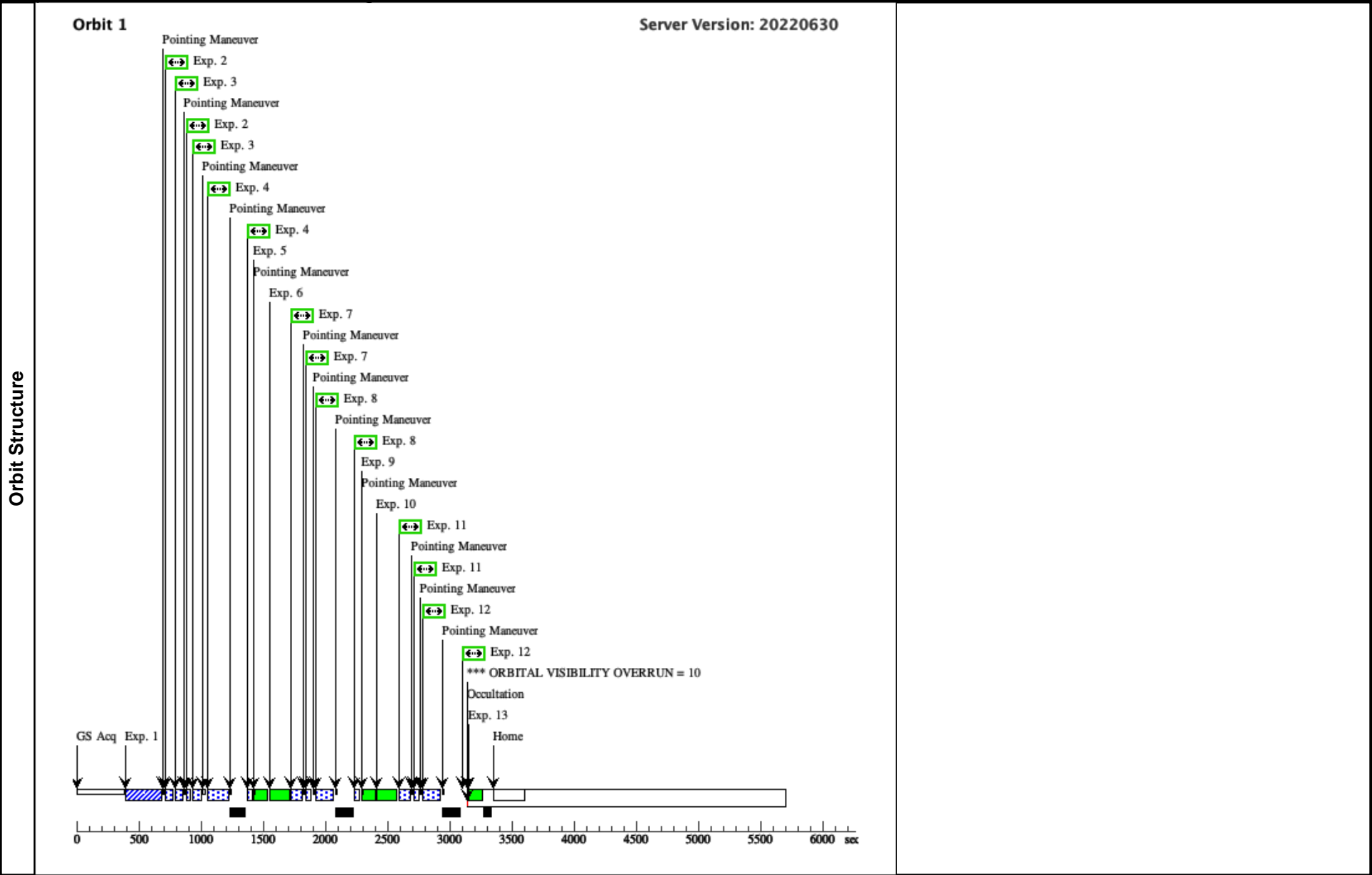
Proposal 15815 - Visit 13 - Resolving massive binaries with STIS

Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 13, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 36D TO 36 D; BETWEEN 01-JAN-2021:00:00:00 AND 01-FEB-2022:00:00:00 Comments: Orientation around 1 Dec 2021: 271+45 = 316 (companion above). Slow motion (~1 century period). Second epoch after visit 03.					
	<b>Diagnosics</b> (Visit 13) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>		
	(1)	Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                  Center Pattern=false Line Spacing=		(4), (7), (8), (11), (12)		
	(2)	Pattern Type=LINE                      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=45 Number Of Points=2                  Angle Between Sides= Point Spacing=0.3535                  Center Pattern=false Line Spacing=		(2-3)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(3)	15-MON-AAAB	RA: 06 40 58.6560 (100.2444000d) Dec: +09 53 44.71 (9.89575d) Equinox: J2000		V=(?) B=4.6	Reference Frame: ICRS
Comments: Category=STAR Description=[MAIN SEQUENCE O] Extended=NO						

Proposal 15815 - Visit 13 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) 15-MON-AAAB	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1BE		0.4 Secs (0.4 Secs)	
									[==>]	[1]
	2		(3) 15-MON-AAAB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-3 i n Visit 13 (2)	0.1 Secs (0.2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(3) 15-MON-AAAB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-3 i n Visit 13 (2)	31 Secs (62 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	4		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 4-4 i n Visit 13 (1)	2.5 Secs (5 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
7		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 13 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
8		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 i n Visit 13 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 13 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
12		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 13 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	



Proposal 15815 - Visit 14 - Resolving massive binaries with STIS

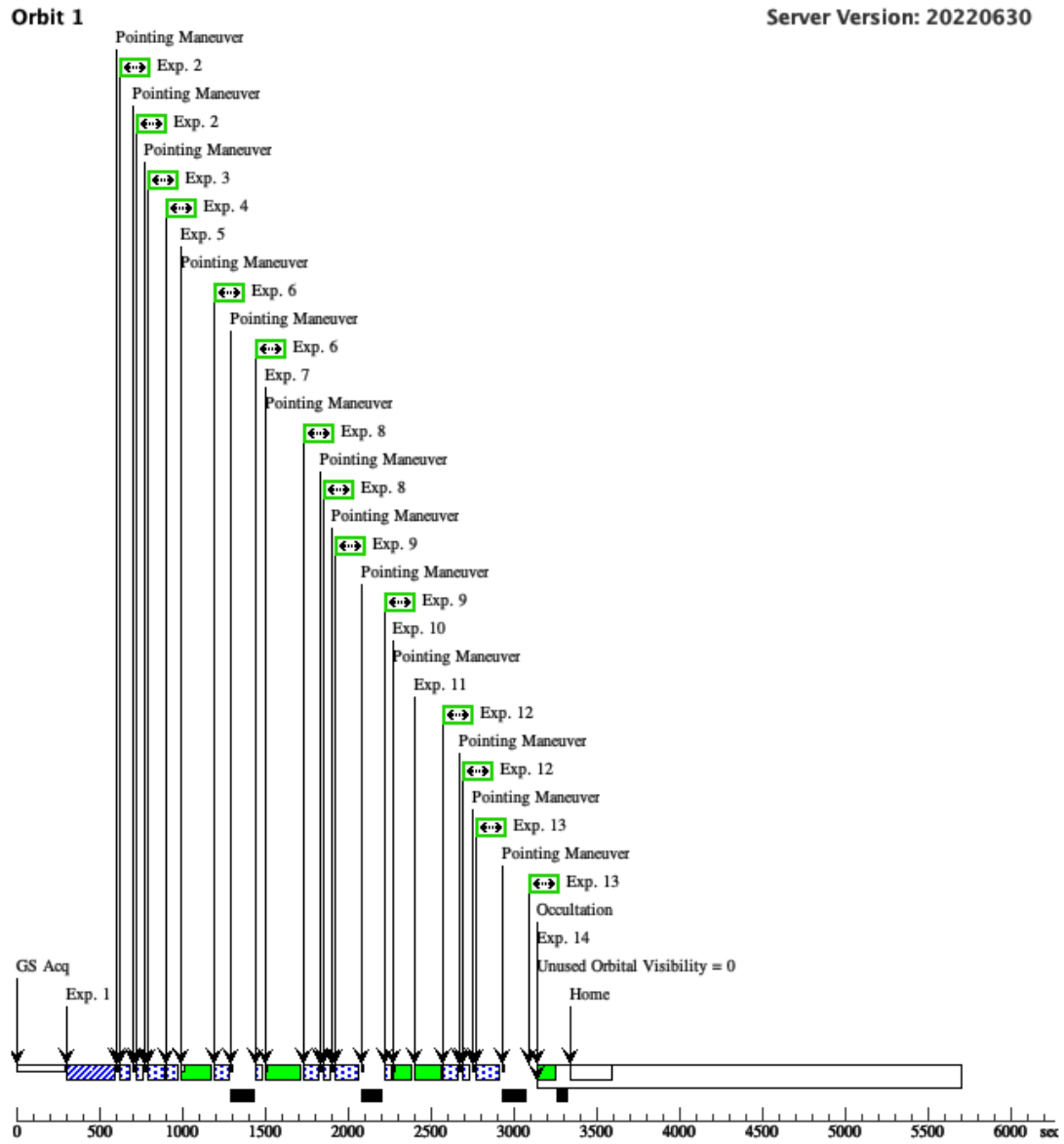
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<p><b>Proposal 15815, Visit 14, completed</b></p> <p><b>Diagnostic Status: No Diagnostics</b></p> <p>Scientific Instruments: STIS/CCD</p> <p>Special Requirements: ORIENT 86D TO 86 D; AFTER 05 BY 30 D TO 31 D</p> <p><i>Comments: Orientation around 01 Mar 2021: 221+45-180 = 86 (companion below). Fast motion (11.3 year period). Cannot be observed before mid 2020 because of low separation of the binary components using the orbit of Balega et al. (2015). Second epoch after visit 05. To be reobserved twice in cycle 29 (visit 15 and 16). Visits 05 and 14 are separated by the half period of Lehmann et al. (2010).</i></p>					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(6), (8), (9), (12), (13)	
	(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false		(2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(5)	THETA1-ORI-CACB	RA: 05 35 16.4630 (83.8185958d) Dec: -05 23 23.18 (-5.38977d) Equinox: J2000		V=(?) B=5.2	Reference Frame: ICRS
	<p><i>Comments:</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[MAIN SEQUENCE O]</i></p> <p><i>Extended=NO</i></p>					

Proposal 15815 - Visit 14 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(5) THETA1-ORI-C ACB	STIS/CCD, ACQ, F25ND3	MIRROR			GS ACQ SCENARI O SINGLE		0.5 Secs (0.5 Secs)	[1]
	2	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO			Pattern 2, Exps 2-2 i n Visit 14 (2)	0.2 Secs (0.4 Secs)	[1]
	3	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4				4 Secs (4 Secs)	[1]
	4	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4				35 Secs (35 Secs)	[1]
	5	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A						[1]
	6	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 6-6 i n Visit 14 (1)	3.5 Secs (7 Secs)	[1]
	7	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A						[1]
	8	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 8-8 i n Visit 14 (1)	3.5 Secs (7 Secs)	[1]
	9	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 9-9 i n Visit 14 (1)	3.5 Secs (7 Secs)	[1]
	10	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A						[1]
	11	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A						[1]
	12	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 12-1 2 in Visit 14 (1)	3.5 Secs (7 Secs)	[1]
	13	(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4			Pattern 1, Exps 13-1 3 in Visit 14 (1)	3.5 Secs (7 Secs)	[1]
14	WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A						[1]	

Orbit Structure



# Proposal 15815 - Visit 15 - Resolving massive binaries with STIS

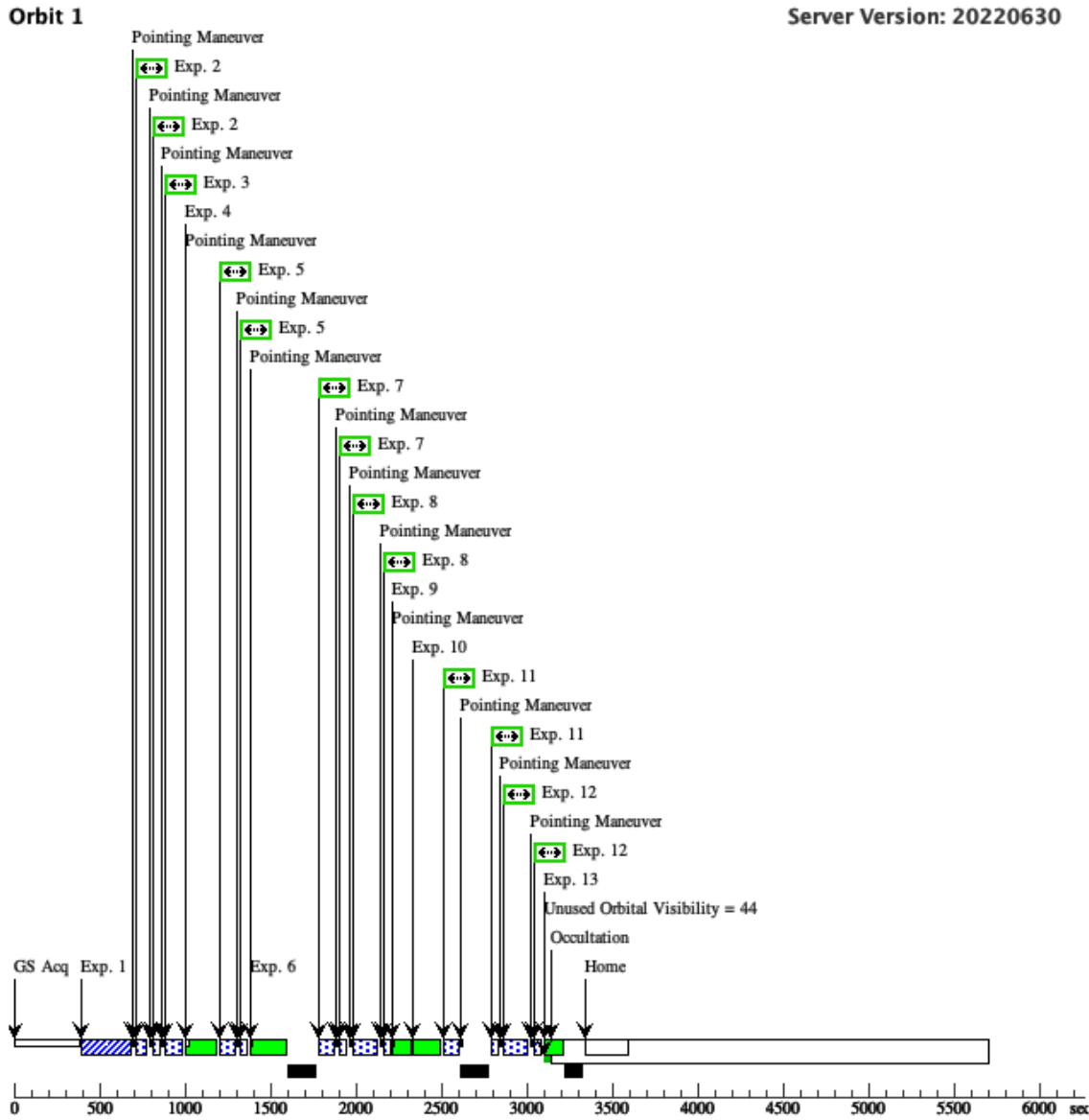
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 15, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 77D TO 77 D; BETWEEN 13-OCT-2022:00:00:00 AND 15-OCT-2022:00:00:00; BETWEEN 13-DEC-2022:00:00:00 AND 15-DEC-2022:00:00:00; BETWEEN 13-FEB-2023:00:00:00 AND 15-FEB-2023:00:00:00; BETWEEN 15-APR-2023:00:00:00 AND 17-APR-2023:00:00:00 Comments: Orientation around 01 Feb 2023: 212+45-180 = 77 (companion below). Fast motion (11.3 year period). Cannot be observed before mid 2020 because of low separation of the binary components using the orbit of Balega et al. (2015). Third epoch after visits 05 and 14. To be reobserved once more in cycle 29 (visit 16). Visits 15 and 16 are separated by the half period of Lehmann et al. (2010).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(5), (7), (8), (11), (12)	
	(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false		(2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(5)	THETA1-ORI-CACB	RA: 05 35 16.4630 (83.8185958d) Dec: -05 23 23.18 (-5.38977d) Equinox: J2000		V=(?) B=5.2	Reference Frame: ICRS
	Comments: Category=STAR Description=[MAIN SEQUENCE O] Extended=NO					

Proposal 15815 - Visit 15 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) THETA1-ORI-C ACB	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1BE		0.5 Secs (0.5 Secs)	
									[==>]	[1]
	2		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-2 i n Visit 15 (2)	0.2 Secs (0.4 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO;			4 Secs (4 Secs)	
						GAIN=4			[==>]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M					
					3936 A				[==>]	[1]
	5		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 5-5 i n Visit 15 (1)	3.5 Secs (7 Secs)	
					3936 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]
						GAIN=4			[==>(Pattern 2)]	[1]
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4194 A				[==>]	[1]	
7		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 7-7 i n Visit 15 (1)	3.5 Secs (7 Secs)		
				4194 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]	[1]	
8		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 8-8 i n Visit 15 (1)	3.5 Secs (7 Secs)		
				4451 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4706 A				[==>]	[1]	
11		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 11-1 1 in Visit 15 (1)	3.5 Secs (7 Secs)		
				4706 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]	[1]	
12		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 12-1 2 in Visit 15 (1)	3.5 Secs (7 Secs)		
				4961 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]	[1]	
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4961 A				[==>]	[1]	

Orbit Structure



# Proposal 15815 - Visit 16 - Resolving massive binaries with STIS

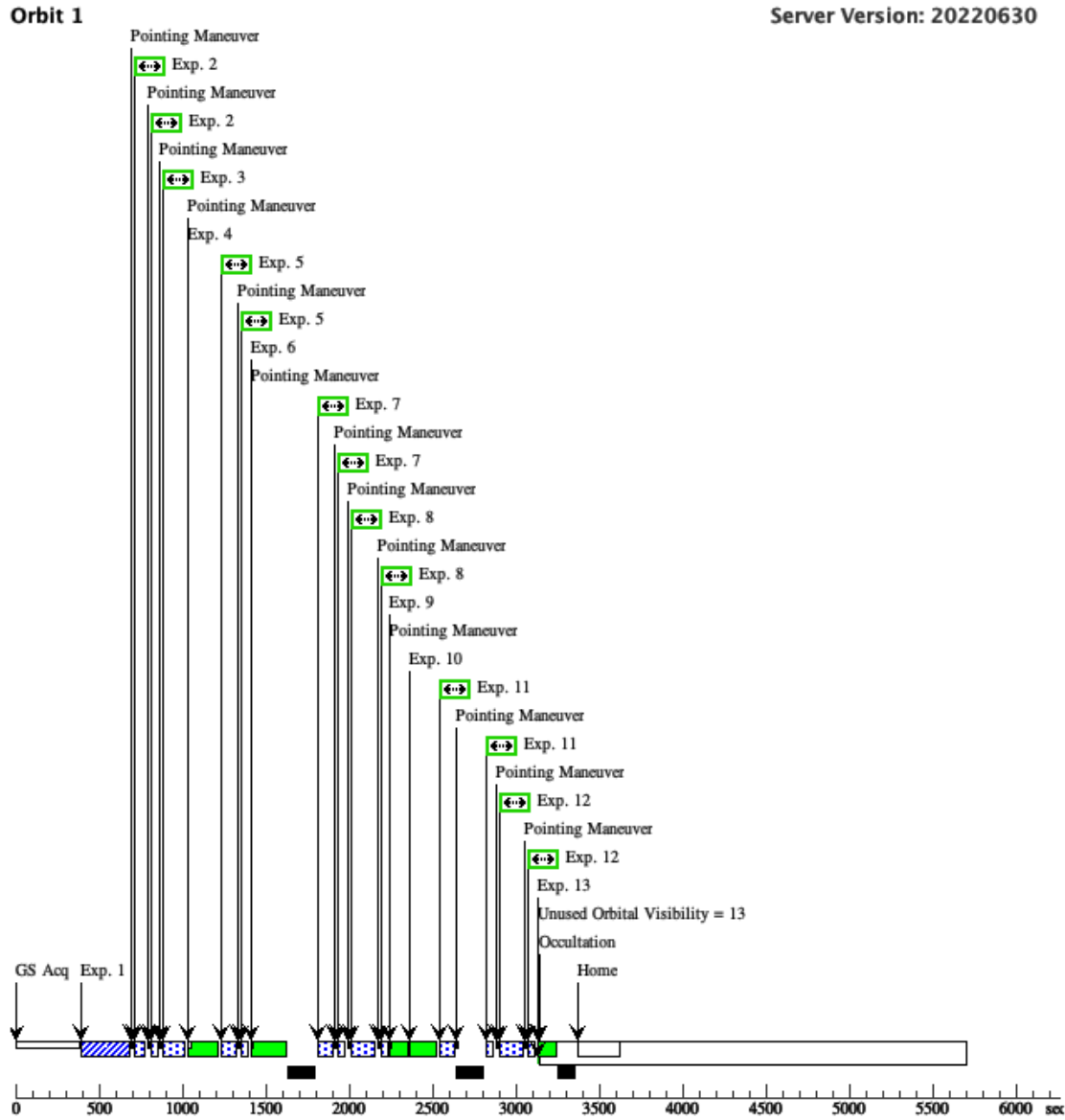
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 16, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 77D TO 77 D; AFTER 15 BY 18 D TO 31 D <i>Comments: Orientation around 01 Feb 2022: 216+45-180 = 81 (companion below). Fast motion (11.3 year period). Cannot be observed before mid 2020 because of low separation of the binary components using the orbit of Balega et al. (2015). Fourth epoch after visits 05, 14, and 15. Visits 15 and 16 are separated by the half period of Lehmann et al. (2010).</i>					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                Center Pattern=false Line Spacing=		(5), (7), (8), (11), (12)		
(2)	Pattern Type=LINE                      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=45 Number Of Points=2                  Angle Between Sides= Point Spacing=0.3535                Center Pattern=false Line Spacing=		(2)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(5)	THETA1-ORI-CACB	RA: 05 35 16.4630 (83.8185958d) Dec: -05 23 23.18 (-5.38977d) Equinox: J2000		V=(?) B=5.2	Reference Frame: ICRS
<i>Comments:                  Category=STAR                  Description=[MAIN SEQUENCE O]                  Extended=NO</i>						

Proposal 15815 - Visit 16 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) THETA1-ORI-C ACB	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1BE		0.5 Secs (0.5 Secs)	
									[==>]	[1]
	2		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-2 i n Visit 16 (2)	0.2 Secs (0.4 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	3		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO;			35 Secs (35 Secs)	
						GAIN=4			[==>]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M					
					3936 A				[==>]	[1]
	5		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 5-5 i n Visit 16 (1)	3.5 Secs (7 Secs)	
					3936 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]
						GAIN=4			[==>(Pattern 2)]	
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4194 A				[==>]	[1]	
7		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 7-7 i n Visit 16 (1)	3.5 Secs (7 Secs)		
				4194 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]		
8		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 8-8 i n Visit 16 (1)	3.5 Secs (7 Secs)		
				4451 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]		
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4706 A				[==>]	[1]	
11		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 11-1 1 in Visit 16 (1)	3.5 Secs (7 Secs)		
				4706 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]		
12		(5) THETA1-ORI-C ACB	STIS/CCD, ACCUM, 52X2E1	G430M	CR-SPLIT=NO;		Pattern 1, Exps 12-1 2 in Visit 16 (1)	3.5 Secs (7 Secs)		
				4961 A	WAVECAL=NO;			[==>(Pattern 1)]	[1]	
					GAIN=4			[==>(Pattern 2)]		
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M						
				4961 A				[==>]	[1]	

Orbit Structure



# Proposal 15815 - Visit 17 - Resolving massive binaries with STIS

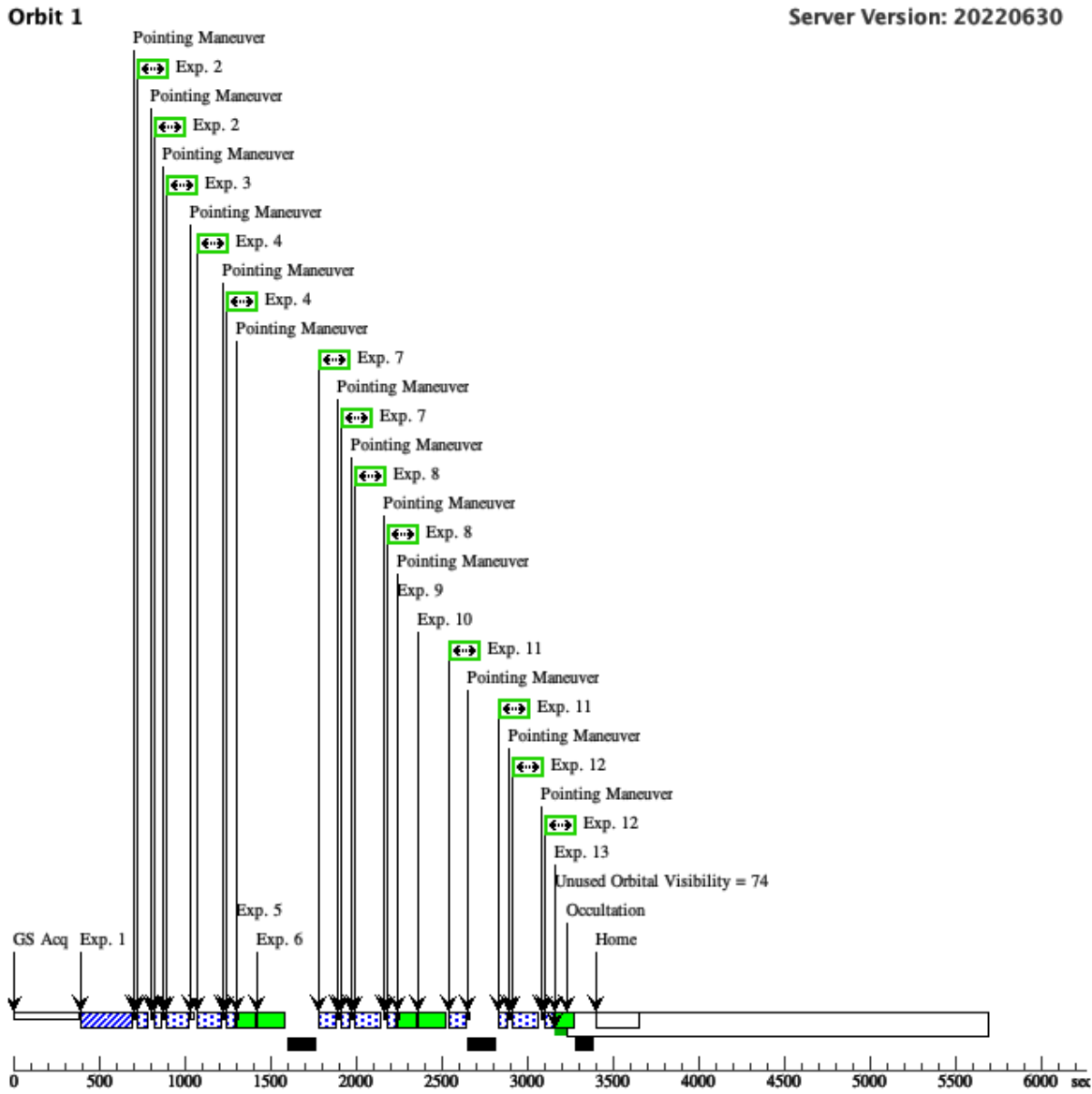
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 17, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 24D TO 24 D; BETWEEN 01-JUL-2020:00:00:00 AND 01-JUL-2021:00:00:00 Comments: Orientation around 01 Jan 2021: 159+45-180 = 24 (companion below). Fast motion (44 year period). Second epoch after visit 07. To be reobserved in cycle 29.					
	<b>Patterns</b>	#	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                Center Pattern=false Line Spacing=		(2), (4), (7), (8), (11), (12)		
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(7)	HD-193322-AAAB	RA: 20 18 6.9900 (304.5291250d) Dec: +40 43 55.46 (40.73207d) Equinox: J2000		V=(?) B=6.8	Reference Frame: ICRS
	Comments: Category=STAR Description=[GIANT O] Extended=NO					

Proposal 15815 - Visit 17 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) HD-193322-AA AB	STIS/CCD, ACQ, F25ND3	MIRROR				2 Secs (2 Secs)	
									[==>]	[1]
	2		(7) HD-193322-AA AB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 17 (1)	1 Secs (2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4			30 Secs (30 Secs)	
									[==>]	[1]
	4		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 4-4 i n Visit 17 (1)	12 Secs (24 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]
7		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 17 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
8		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 i n Visit 17 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 17 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
12		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 17 (1)	12 Secs (24 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 18 - Resolving massive binaries with STIS

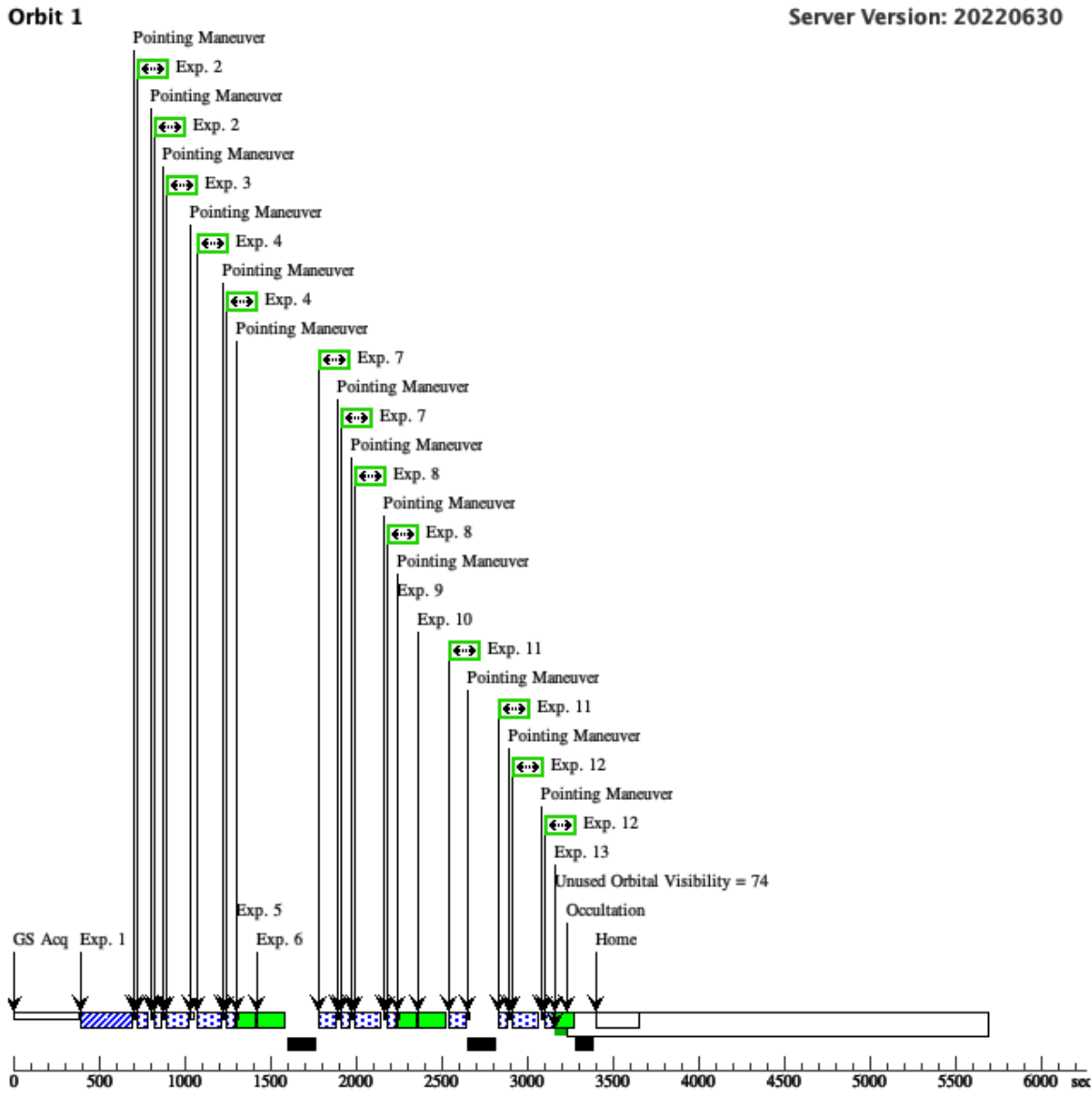
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 18, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 27D TO 27 D; BETWEEN 01-JUL-2021:00:00:00 AND 01-JUL-2022:00:00:00 Comments: Orientation around 01 Jan 2022: 162+45-180 = 27 (companion below). Fast motion (44 year period). Third epoch after visits 07 and 17.					
	<b>Patterns</b>	#	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                Center Pattern=false Line Spacing=		(2), (4), (7), (8), (11), (12)		
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(7)	HD-193322-AAAB	RA: 20 18 6.9900 (304.5291250d) Dec: +40 43 55.46 (40.73207d) Equinox: J2000		V=(?) B=6.8	Reference Frame: ICRS
	Comments: Category=STAR Description=[GIANT O] Extended=NO					

Proposal 15815 - Visit 18 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) HD-193322-AA AB	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1BE		2 Secs (2 Secs) [==>]	[1]
	2		(7) HD-193322-AA AB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 1, Exps 2-2 i n Visit 18 (1)	1 Secs (2 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 50CCD	MIRROR	CR-SPLIT=NO; GAIN=4			30 Secs (30 Secs) [==>]	[1]
	4		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 4-4 i n Visit 18 (1)	12 Secs (24 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]
	7		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 18 (1)	12 Secs (24 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 i n Visit 18 (1)	12 Secs (24 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]
	10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]
	11		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 18 (1)	12 Secs (24 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	12		(7) HD-193322-AA AB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 18 (1)	12 Secs (24 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



# Proposal 15815 - Visit 19 - Resolving massive binaries with STIS

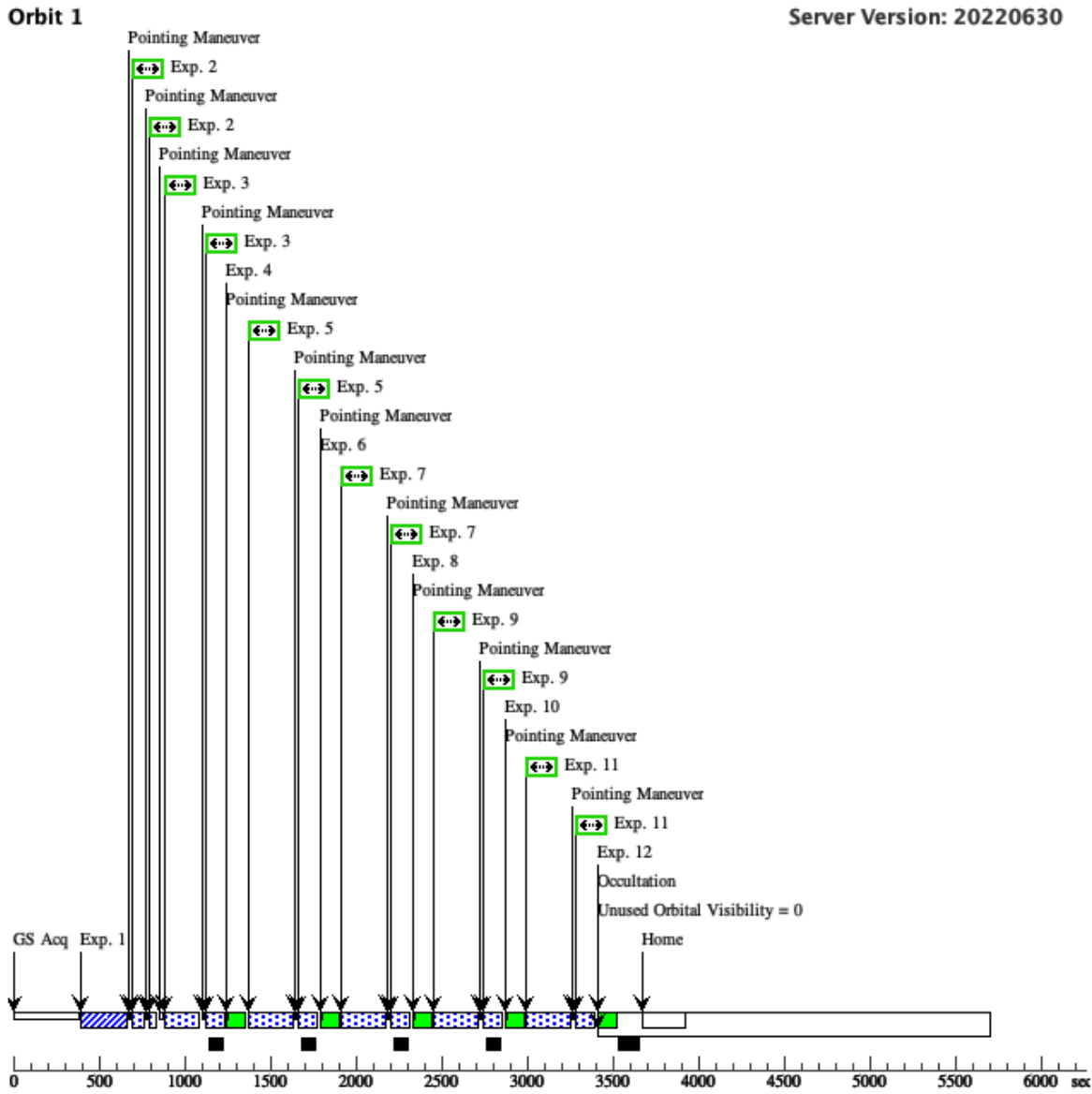
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 19, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 136D TO 136 D; BETWEEN 08-DEC-2020:06:00:00 AND 08-DEC-2020:12:00:00; BETWEEN 11-DEC-2020:07:30:00 AND 11-DEC-2020:13:30:00; BETWEEN 14-DEC-2020:09:00:00 AND 14-DEC-2020:15:00:00; BETWEEN 17-DEC-2020:10:30:00 AND 17-DEC-2020:16:30:00; BETWEEN 20-DEC-2020:12:00:00 AND 20-DEC-2020:18:00:00 Comments: Orientation around 1 Dec 2019: 91+45 = 136 (companion below). Slow motion (>1 century period). Second epoch after visit 09. To be reobserved again in cycle 28. Visits 19 and 20 are separated by the half period of McSwain (2003).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
(1)		Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false		(3), (5), (7), (9), (11)		
(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false		(2)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(9)	HD-16429-AAAB	RA: 02 40 44.9510 (40.1872958d) Dec: +61 16 56.04 (61.28223d) Equinox: J2000		V=(?) B=8.5	Reference Frame: ICRS
Comments: Category=STAR Description=[GIANT O] Extended=NO						

Proposal 15815 - Visit 19 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(9) HD-16429-AAA B	STIS/CCD, ACQ, F28X500II	MIRROR				3 Secs (3 Secs)	
									[==>]	[1]
	2		(9) HD-16429-AAA B	STIS/CCD, ACCUM, F28X500II	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-2 i n Visit 19 (2)	1 Secs (2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 i n Visit 19 (1)	73 Secs (146 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	5		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 5-5 i n Visit 19 (1)	73 Secs (146 Secs)	
									[==>(Pattern 1)]	[1]
								[==>(Pattern 2)]	[1]	
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
7		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 19 (1)	73 Secs (146 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 9-9 i n Visit 19 (1)	73 Secs (146 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 19 (1)	72 Secs (144 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 20 - Resolving massive binaries with STIS

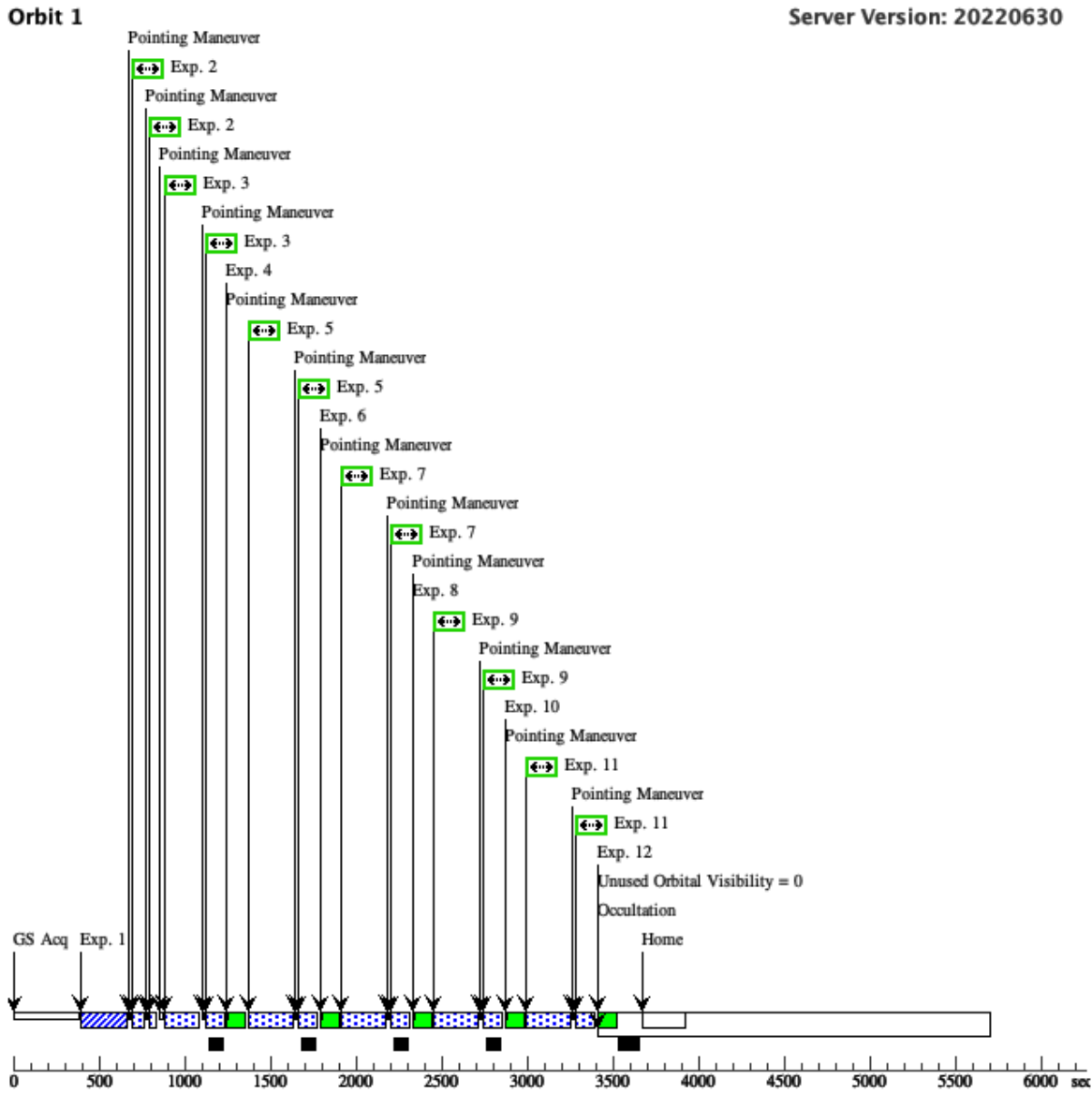
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 20, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 136D TO 136 D; AFTER 19 BY 35 H TO 38 H <i>Comments: Orientation around 1 Dec 2019: 91+45 = 136 (companion below). Slow motion (&gt;1 century period).                  Second epoch after visits 09 and 19. Visits 19 and 20 are separated by the half period of McSwain (2003).</i>					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
		(1)	Pattern Type=STIS-ALONG-SLIT      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=90.0 Number Of Points=2                  Angle Between Sides= Point Spacing=0.025                Center Pattern=false Line Spacing=		(3), (5), (7), (9), (11)	
(2)	Pattern Type=LINE                      Coordinate Frame=POS-TARG Purpose=DITHER                      Pattern Orientation=45 Number Of Points=2                  Angle Between Sides= Point Spacing=0.3535                Center Pattern=false Line Spacing=		(2)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(9)	HD-16429-AAAB	RA: 02 40 44.9510 (40.1872958d) Dec: +61 16 56.04 (61.28223d) Equinox: J2000		V=(?) B=8.5	Reference Frame: ICRS
<i>Comments:                  Category=STAR                  Description=[GIANT O]                  Extended=NO</i>						

Proposal 15815 - Visit 20 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(9) HD-16429-AAA B	STIS/CCD, ACQ, F28X500II	MIRROR				3 Secs (3 Secs)	
									[==>]	[1]
	2		(9) HD-16429-AAA B	STIS/CCD, ACCUM, F28X500II	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-2 in Visit 20 (2)	1 Secs (2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 3-3 in Visit 20 (1)	73 Secs (146 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	4		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	5		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 5-5 in Visit 20 (1)	73 Secs (146 Secs)	
									[==>(Pattern 1)]	[1]
								[==>(Pattern 2)]	[1]	
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
7		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 in Visit 20 (1)	73 Secs (146 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
8		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
9		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 9-9 in Visit 20 (1)	73 Secs (146 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(9) HD-16429-AAA B	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-11 in Visit 20 (1)	72 Secs (144 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 21 - Resolving massive binaries with STIS

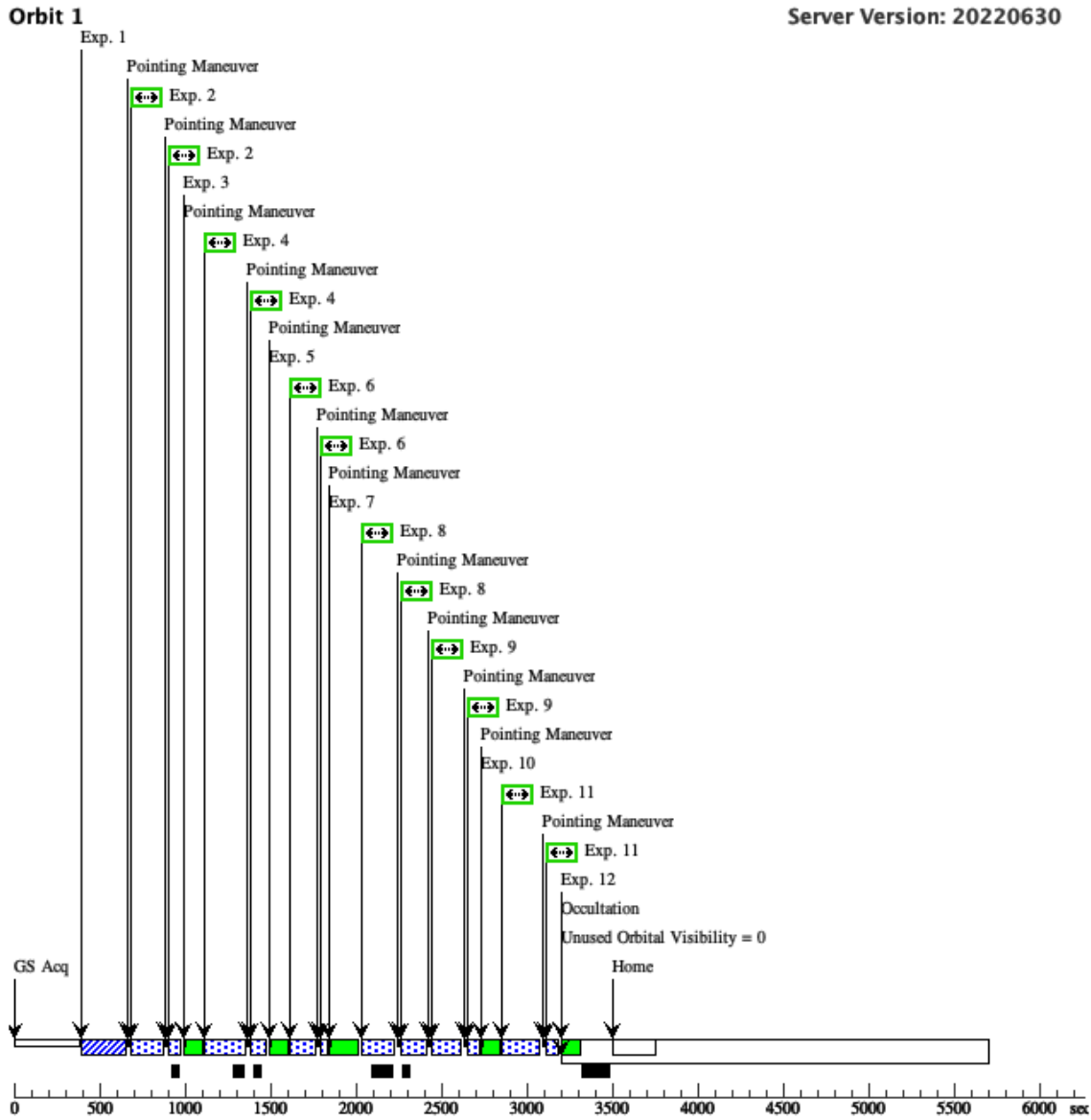
Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 21, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 114D TO 116 D; BETWEEN 30-SEP-2020:18:00:00 AND 01-OCT-2020:18:00:00; BETWEEN 08-OCT-2020:00:00:00 AND 09-OCT-2020:00:00:00; BETWEEN 15-OCT-2020:18:00:00 AND 16-OCT-2020:18:00:00; BETWEEN 23-OCT-2020:00:00:00 AND 24-OCT-2020:00:00:00 Comments: Orientation in Fall 2020: 250+45-180 = 115 (companion below). Slow motion (>1 century period). Semiinteger period from visit 08.					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
		(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false	(2), (4), (8), (9), (11)	
(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false	(6)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(8)	HD-193443-AB	RA: 20 18 51.7070 (304.7154458d) Dec: +38 16 46.50 (38.27958d) Equinox: J2000		V=(?) B=8.3	Reference Frame: ICRS
Comments: Category=STAR Description=[GIANT O] Extended=NO						

Proposal 15815 - Visit 21 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(8) HD-193443-AB	STIS/CCD, ACQ, F28X500II	MIRROR				1 Secs (1 Secs)	
									[==>]	[1]
	2		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 2-2 in Visit 21 (1)	34 Secs (68 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	3		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
	4		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 4-4 in Visit 21 (1)	51 Secs (102 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]
	6		(8) HD-193443-AB	STIS/CCD, ACCUM, F28X500II	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 6-6 in Visit 21 (2)	0.7 Secs (1.4 Secs)	
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
7		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
8		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 in Visit 21 (1)	110 Secs (220 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
9		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 9-9 in Visit 21 (1)	34 Secs (68 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(8) HD-193443-AB	STIS/CCD, ACCUM, 52X2	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO		Pattern 1, Exps 11-11 in Visit 21 (1)	35 Secs (70 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
12		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure



Proposal 15815 - Visit 22 - Resolving massive binaries with STIS

Fri Dec 09 16:01:10 GMT 2022

<b>Visit</b>	<b>Proposal 15815, Visit 22, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 37D TO 37 D; BETWEEN 01-JAN-2021:00:00:00 AND 01-MAR-2023:00:00:00 Comments: Orientation around 1 Dec 2021: 272+45 = 317 (companion above). Slow motion (~1 century period). Second epoch after visit 03 (visit 13 failed).					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
		(1)	Pattern Type=STIS-ALONG-SLIT Purpose=DITHER Number Of Points=2 Point Spacing=0.025 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90.0 Angle Between Sides= Center Pattern=false	(4), (7), (8), (11), (12)	
(2)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.3535 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=45 Angle Between Sides= Center Pattern=false	(2-3)			
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(3)	15-MON-AAAB	RA: 06 40 58.6560 (100.2444000d) Dec: +09 53 44.71 (9.89575d) Equinox: J2000		V=(?) B=4.6	Reference Frame: ICRS
Comments: Category=STAR Description=[MAIN SEQUENCE O] Extended=NO						

Proposal 15815 - Visit 22 - Resolving massive binaries with STIS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) 15-MON-AAAB	STIS/CCD, ACQ, F25ND3	MIRROR		GS ACQ SCENARI O BASE1BE		0.4 Secs (0.4 Secs)	
									[==>]	[1]
	2		(3) 15-MON-AAAB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-3 i n Visit 22 (2)	0.1 Secs (0.2 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	3		(3) 15-MON-AAAB	STIS/CCD, ACCUM, F25ND3	MIRROR	CR-SPLIT=NO		Pattern 2, Exps 2-3 i n Visit 22 (2)	26 Secs (52 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	4		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 3936 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 4-4 i n Visit 22 (1)	2.5 Secs (5 Secs)	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	[1]
	5		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A				[==>]	[1]
6		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4194 A				[==>]	[1]	
7		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4194 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 i n Visit 22 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
8		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4451 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 8-8 i n Visit 22 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
9		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A				[==>]	[1]	
10		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A				[==>]	[1]	
11		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4706 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 11-1 1 in Visit 22 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
12		(3) 15-MON-AAAB	STIS/CCD, ACCUM, 52X2E1	G430M 4961 A	CR-SPLIT=NO; WAVECAL=NO; GAIN=4		Pattern 1, Exps 12-1 2 in Visit 22 (1)	2.5 Secs (5 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]	[1]	
13		WAVE	STIS/CCD, ACCUM, 52X0.2	G430M 4961 A				[==>]	[1]	

Orbit Structure

