



## 17092 - Calibrating STIS Coronagraphic Spectroscopy for High Contrast

### Observations

Cycle: 30, Proposal Category: GO

(Calibration)

(Availability Mode: SUPPORTED)

#### INVESTIGATORS

<i>Name</i>	<i>Institution</i>
<b>Dr. Kimberly Ward-Duong (PI) (Contact)</b>	<b>Smith College</b>
Dr. John Henry Debes (CoI) (ESA Member)	Space Telescope Science Institute - ESA - JWST
Dr. Jonathan Aguilar (CoI)	Space Telescope Science Institute
William Balmer (CoI)	The Johns Hopkins University
Dr. Katherine Brutlag Follette (CoI)	Amherst College
Jingyi Zhang (CoI)	Smith College

#### 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) TYC-1262-187-1 CCDFLAT	STIS/CCD	2	02-Aug-2023 12:00:21.0	yes
02	(2) HD-283593 CCDFLAT	STIS/CCD	2	02-Aug-2023 12:00:22.0	yes
03	(3) HD-114174 CCDFLAT	STIS/CCD	1	02-Aug-2023 12:00:23.0	yes
04	(4) HD-115692 CCDFLAT	STIS/CCD	1	02-Aug-2023 12:00:24.0	yes

6 Total Orbits Used

## **ABSTRACT**

The Space Telescope Imaging Spectrograph (STIS) is currently the world's only available visible-light coronagraphic spectroscopy facility. The unique capabilities of R~500 optical spectroscopy at close angular separation (0.05-0.3") from a bright central object has been relatively unexplored with this mode and to-date are not yet fully calibrated. The goal of this program is to assess the achievable contrast, inner working angle, and fidelity of extracted spectra using the occulting fiducial F1 bar in the STIS 52x0.2 spectroscopic aperture. Targets will be two well-measured single A0V standard stars, in addition to a binary white dwarf companion system and PSF reference, wherein the faint companion has published images and low-resolution spectra against which STIS observations will be compared. Use of target offsets from the nominal bar acquisition positions, pushing the star as close as possible to the edge of the occulter, will allow us to determine the limits of coronagraphic performance achievable with this mode. The driving science benefit to the community is to provide well-calibrated contrast curves, an understanding of the noise properties and quality of extracted spectra in this mode. These measurements would have immediate utility for programs involving spectroscopy of imaged exoplanets, brown dwarfs, and close binary companions; circumstellar disks; jet-launching regions in young protostars; and AGN jets and host environments (i.e., any scientific case where optical spectra at very small angular separations are of interest). The proposed program will explore and calibrate the full capabilities of this unique mode made possible only with HST/STIS.

## **OBSERVING DESCRIPTION**

-----  
Overview  
-----

This calibration program involves six orbits to measure and calibrate the performance of the coronagraphic spectroscopy mode of STIS, via two main experiments:

### 1) Contrast Test:

This experiment serves to determine the achievable contrast of the coronagraphic spectroscopy mode, involving observations of two early-type (A2V) stars, TYC 1262-187-1 and HD283593. These stars will each be acquired in imaging mode, then placed within the fiducial 52x0.2F1 aperture behind the F1 coronagraphic occulting bar. Then, each star will be offset toward the edge of bar by 100 mas or 200 mas using POS-TARGs, and deep

observations will be taken in order to determine the sensitivity of the extracted spectra at close angular separation from the star. The stars will need to be observed in a standard coronagraphic sequence, i.e., in adjacent orbits. This is required to minimize the effects of breathing due to thermal fluctuations across the telescope structure, which has significant effects on PSF quality. The two observations will be used as calibration observations (PSF references) for each other in order to subtract the starlight in each exposure and allow deep observations of the circumstellar surroundings, and thus they may be observed in any order.

## 2) Spectral Extraction Test:

This experiment is designed to assess the fidelity of the extracted spectra at close angular separation (0.45") from the star. The target is a binary system consisting of a G-type star (HD114174) and its well-characterized white dwarf companion. The primary G-type star will be placed at the fiducial 52x0.2F1 position behind the bar with a designated ORIENT angle to place the white dwarf companion within the spectroscopic slit. Along with the binary, a PSF reference target of similar spectral type (HD115692) will be observed to subtract the PSF and recover the spectrum of the white dwarf by removing contributed starlight from the primary G-star behind the coronagraphic bar.

-----  
2) Visit Structure  
-----

For the Contrast Test, we will obtain deep observations of each star at two separate POS-TARG offset positions. Given that the targets are isolated stars, no specific ORIENT angles are required. The observations are designed to be executed in subsequent orbits.

For the Spectral Test, the binary system must be observed in subsequent orbits with the PSF reference.

-----  
ORIENT Constraints  
-----

Proposal 17092 (STScI Edit Number: 0, Created: Wednesday, August 2, 2023 at 11:00:25 AM Eastern Standard Time) - Overview

This visit involves placing a close faint white dwarf companion to the primary star within the slit. The companion is predicted to be at a position angle of 178.5 deg and separation of ~0.45 arcsec (as of August 2023 based upon RV and astrometric orbital analysis, including an imaging epoch as recent as July 2022 with JWST), and the companion is moving closer to the primary star. Given the 45 deg relative angle of the STIS detector to the +U3 axis and the additional 1.3 deg offset to the 52x0.2F1 slit, we therefore request the ORIENT constraint to be within one of two sets of possible 20 degree ranges to place the companion either directly above or below the occulting bar within the slit (~225 +/- 10 deg. or ~45 +/- 10 deg., respectively).

-----  
Guide Stars  
-----

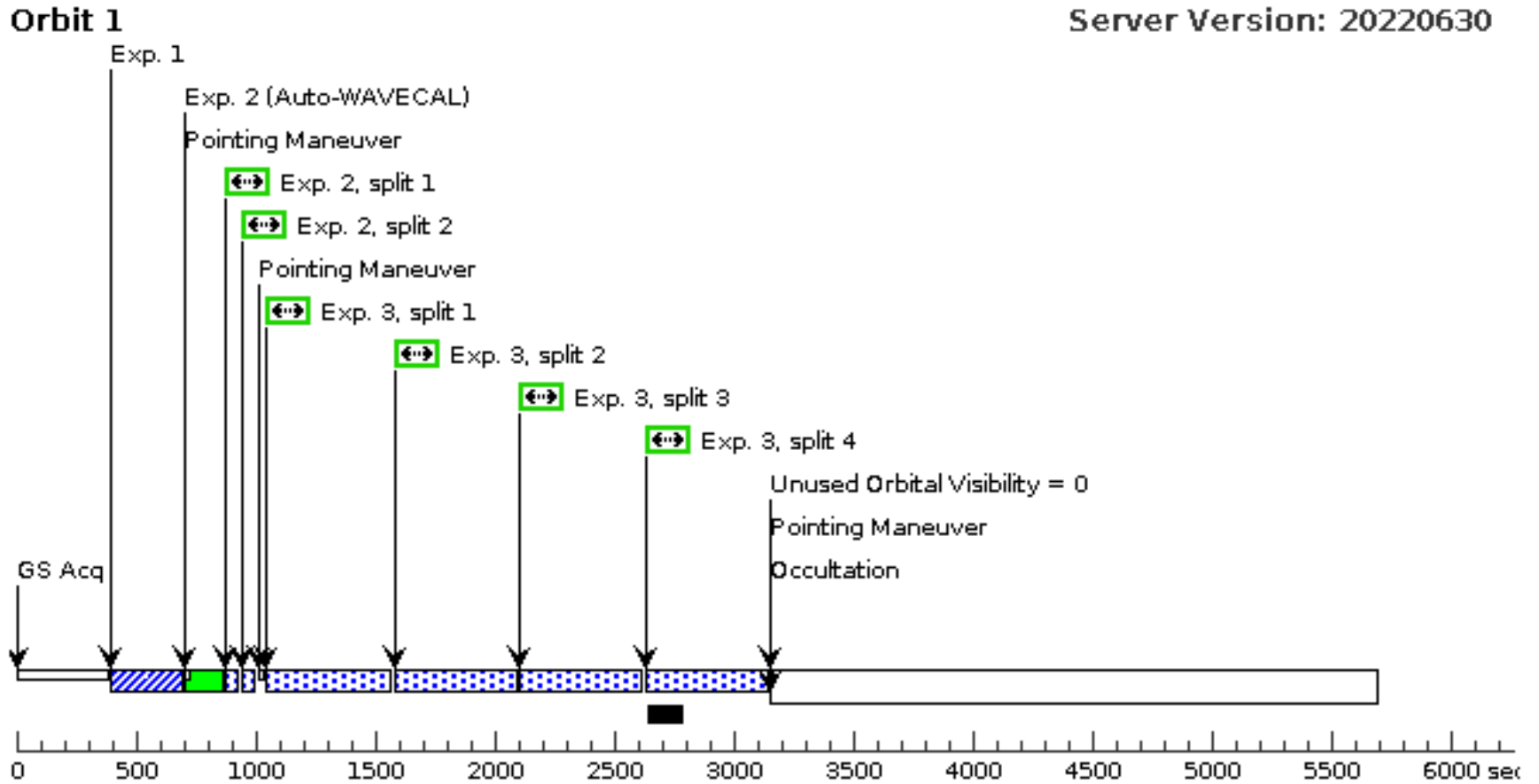
For stability with the PSF reference subtraction in both experiments, we require pointing and roll control with 2-FGS guiding. Single-FGS guiding is not sufficiently stable to perform PSF subtraction for coronagraphic spectroscopy.

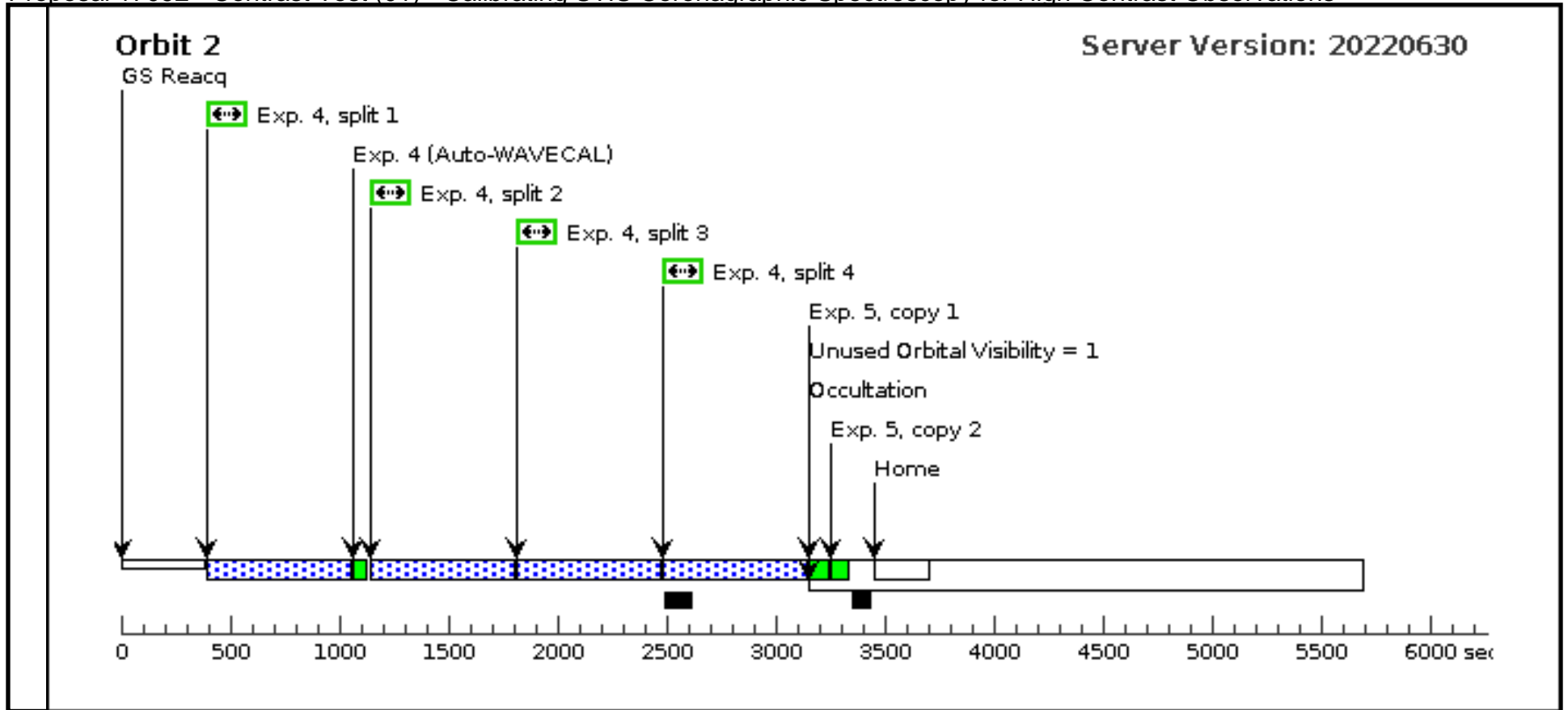
Proposal 17092 - Contrast Test (01) - Calibrating STIS Coronagraphic Spectroscopy for High Contrast Observations

Wed Aug 02 16:00:25 GMT 2023

Visit	<b>Proposal 17092, Contrast Test (01), pi</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: GROUP 01.02 WITHIN 4 Orbits																																																																						
	Fixed Targets	<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>(1)</td> <td>TYC-1262-187-1</td> <td>RA: 04 00 35.1678 (60.1465325d) Dec: +21 51 49.70 (21.86381d) Equinox: J2000</td> <td>Proper Motion RA: -3.973 mas/yr Proper Motion Dec: -3.800000058618025 mas/yr Epoch of Position: 2000</td> <td>V=10.13</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>                      Category=STAR                      Description=[F0-F2]</p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	TYC-1262-187-1	RA: 04 00 35.1678 (60.1465325d) Dec: +21 51 49.70 (21.86381d) Equinox: J2000	Proper Motion RA: -3.973 mas/yr Proper Motion Dec: -3.800000058618025 mas/yr Epoch of Position: 2000	V=10.13	Reference Frame: ICRS																																																									
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																																																																		
(1)	TYC-1262-187-1	RA: 04 00 35.1678 (60.1465325d) Dec: +21 51 49.70 (21.86381d) Equinox: J2000	Proper Motion RA: -3.973 mas/yr Proper Motion Dec: -3.800000058618025 mas/yr Epoch of Position: 2000	V=10.13	Reference Frame: ICRS																																																																		
Exposures	<table border="1"> <thead> <tr> <th>#</th> <th>Label (ETC Run)</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>TYC 1262 - ACQ (STIS.ta.181 5045)</td> <td>(1) TYC-1262-187-1</td> <td>STIS/CCD, ACQ, F25ND3</td> <td>MIRROR</td> <td></td> <td></td> <td></td> <td>1 Secs (1 Secs) [==&gt;]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>Point Spectrum - TYC 1262 (STIS.sp.18 66266)</td> <td>(1) TYC-1262-187-1</td> <td>STIS/CCD, ACCUM, 52X0.2E1</td> <td>G750L 7751 A</td> <td></td> <td></td> <td></td> <td>40 Secs (40 Secs) [==&gt;(Split 1)] [==&gt;(Split 2)]</td> <td>[1]</td> </tr> <tr> <td colspan="10"><i>Comments: Using the E1 pseudo-aperture to avoid CTE effects.</i></td> </tr> <tr> <td>3</td> <td>100 mas offset</td> <td>(1) TYC-1262-187-1</td> <td>STIS/CCD, ACCUM, 52X0.2F1</td> <td>G750L 7751 A</td> <td>CR-SPLIT=4; GAIN=4</td> <td>POS TARG null,0.10 0</td> <td></td> <td>1916 Secs (1916 Secs) [==&gt;(Split 1)] [==&gt;(Split 2)] [==&gt;(Split 3)] [==&gt;(Split 4)]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>200 mas offset</td> <td>(1) TYC-1262-187-1</td> <td>STIS/CCD, ACCUM, 52X0.2F1</td> <td>G750L 7751 A</td> <td>CR-SPLIT=4; GAIN=4</td> <td>POS TARG null,0.20 0</td> <td></td> <td>2504 Secs (2504 Secs) [==&gt;(Split 1)] [==&gt;(Split 2)] [==&gt;(Split 3)] [==&gt;(Split 4)]</td> <td>[2]</td> </tr> <tr> <td>5</td> <td>Fringe Flat</td> <td>CCDFLAT</td> <td>STIS/CCD, ACCUM, 52X0.2F1</td> <td>G750L 7751 A</td> <td></td> <td></td> <td></td> <td>[==&gt;(Copy 1)] [==&gt;(Copy 2)]</td> <td>[2]</td> </tr> </tbody> </table>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1	TYC 1262 - ACQ (STIS.ta.181 5045)	(1) TYC-1262-187-1	STIS/CCD, ACQ, F25ND3	MIRROR				1 Secs (1 Secs) [==>]	[1]	2	Point Spectrum - TYC 1262 (STIS.sp.18 66266)	(1) TYC-1262-187-1	STIS/CCD, ACCUM, 52X0.2E1	G750L 7751 A				40 Secs (40 Secs) [==>(Split 1)] [==>(Split 2)]	[1]	<i>Comments: Using the E1 pseudo-aperture to avoid CTE effects.</i>										3	100 mas offset	(1) TYC-1262-187-1	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=4; GAIN=4	POS TARG null,0.10 0		1916 Secs (1916 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)]	[1]	4	200 mas offset	(1) TYC-1262-187-1	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=4; GAIN=4	POS TARG null,0.20 0		2504 Secs (2504 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)]	[2]	5	Fringe Flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A				[==>(Copy 1)] [==>(Copy 2)]	[2]
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																														
1	TYC 1262 - ACQ (STIS.ta.181 5045)	(1) TYC-1262-187-1	STIS/CCD, ACQ, F25ND3	MIRROR				1 Secs (1 Secs) [==>]	[1]																																																														
2	Point Spectrum - TYC 1262 (STIS.sp.18 66266)	(1) TYC-1262-187-1	STIS/CCD, ACCUM, 52X0.2E1	G750L 7751 A				40 Secs (40 Secs) [==>(Split 1)] [==>(Split 2)]	[1]																																																														
<i>Comments: Using the E1 pseudo-aperture to avoid CTE effects.</i>																																																																							
3	100 mas offset	(1) TYC-1262-187-1	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=4; GAIN=4	POS TARG null,0.10 0		1916 Secs (1916 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)]	[1]																																																														
4	200 mas offset	(1) TYC-1262-187-1	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=4; GAIN=4	POS TARG null,0.20 0		2504 Secs (2504 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)]	[2]																																																														
5	Fringe Flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A				[==>(Copy 1)] [==>(Copy 2)]	[2]																																																														

Orbit Structure



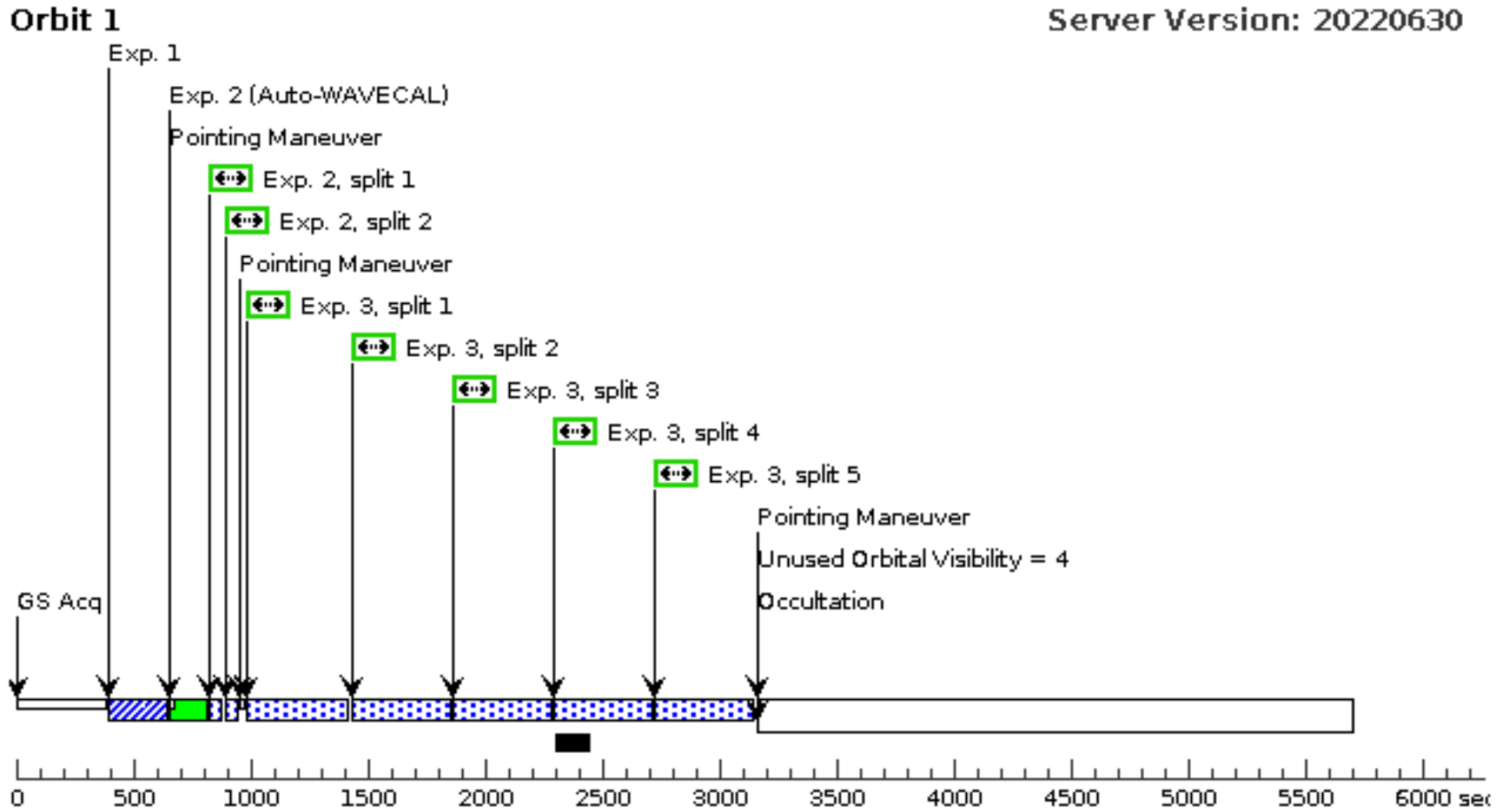


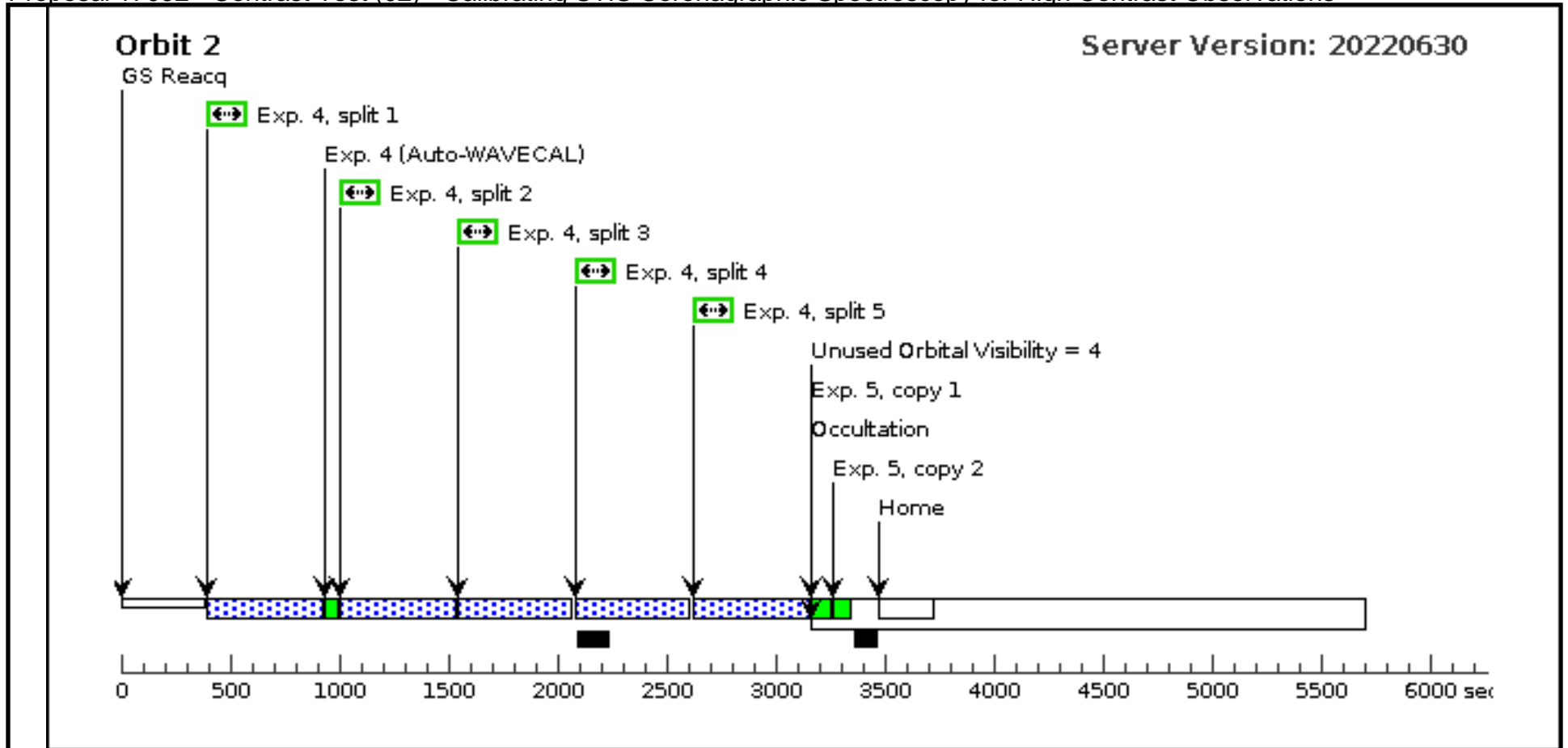
Proposal 17092 - Contrast Test (02) - Calibrating STIS Coronagraphic Spectroscopy for High Contrast Observations

Wed Aug 02 16:00:25 GMT 2023

Visit	<b>Proposal 17092, Contrast Test (02), pi</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: GROUP 02.01 WITHIN 4 Orbits																					
	Fixed Targets	<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>(2)</td> <td>HD-283593</td> <td>RA: 04 19 3.6931 (64.7653879d) Dec: +25 57 11.03 (25.95306d) Equinox: J2000</td> <td>Proper Motion RA: 3.5959768250150615E-5 sec of time/yr Proper Motion Dec: -0.004554999986794428 arcsec/yr Epoch of Position: 2000.0</td> <td>V=9.81</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>                  Category=STAR                  Description=[A0-A3 V-IV]</p>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	HD-283593	RA: 04 19 3.6931 (64.7653879d) Dec: +25 57 11.03 (25.95306d) Equinox: J2000	Proper Motion RA: 3.5959768250150615E-5 sec of time/yr Proper Motion Dec: -0.004554999986794428 arcsec/yr Epoch of Position: 2000.0	V=9.81
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																	
(2)	HD-283593	RA: 04 19 3.6931 (64.7653879d) Dec: +25 57 11.03 (25.95306d) Equinox: J2000	Proper Motion RA: 3.5959768250150615E-5 sec of time/yr Proper Motion Dec: -0.004554999986794428 arcsec/yr Epoch of Position: 2000.0	V=9.81	Reference Frame: ICRS																	
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit												
	1	HD283593 ACQ (STIS.ta.181 5046)	(2) HD-283593	STIS/CCD, ACQ, 50CCD	MIRROR				1 Secs (1 Secs) [==>]	[1]												
	2	Point Spectrum - HD283593 (STIS.sp.18 66268)	(2) HD-283593	STIS/CCD, ACCUM, 52X0.2E1	G750L 7751 A				30 Secs (30 Secs) [==>(Split 1)] [==>(Split 2)]	[1]												
	<i>Comments: Using the E1 pseudo-aperture to avoid CTE effects.</i>																					
	3	100 mas offset	(2) HD-283593	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=5; GAIN=4	POS TARG null,0.10 0		1934 Secs (1934 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] [==>(Split 5)]	[1]												
4	200 mas offset	(2) HD-283593	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=5; GAIN=4	POS TARG null,0.20 0		2464 Secs (2464 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] [==>(Split 5)]	[2]													
5	Fringe Flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A				[==>(Copy 1)] [==>(Copy 2)]	[2]													

Orbit Structure

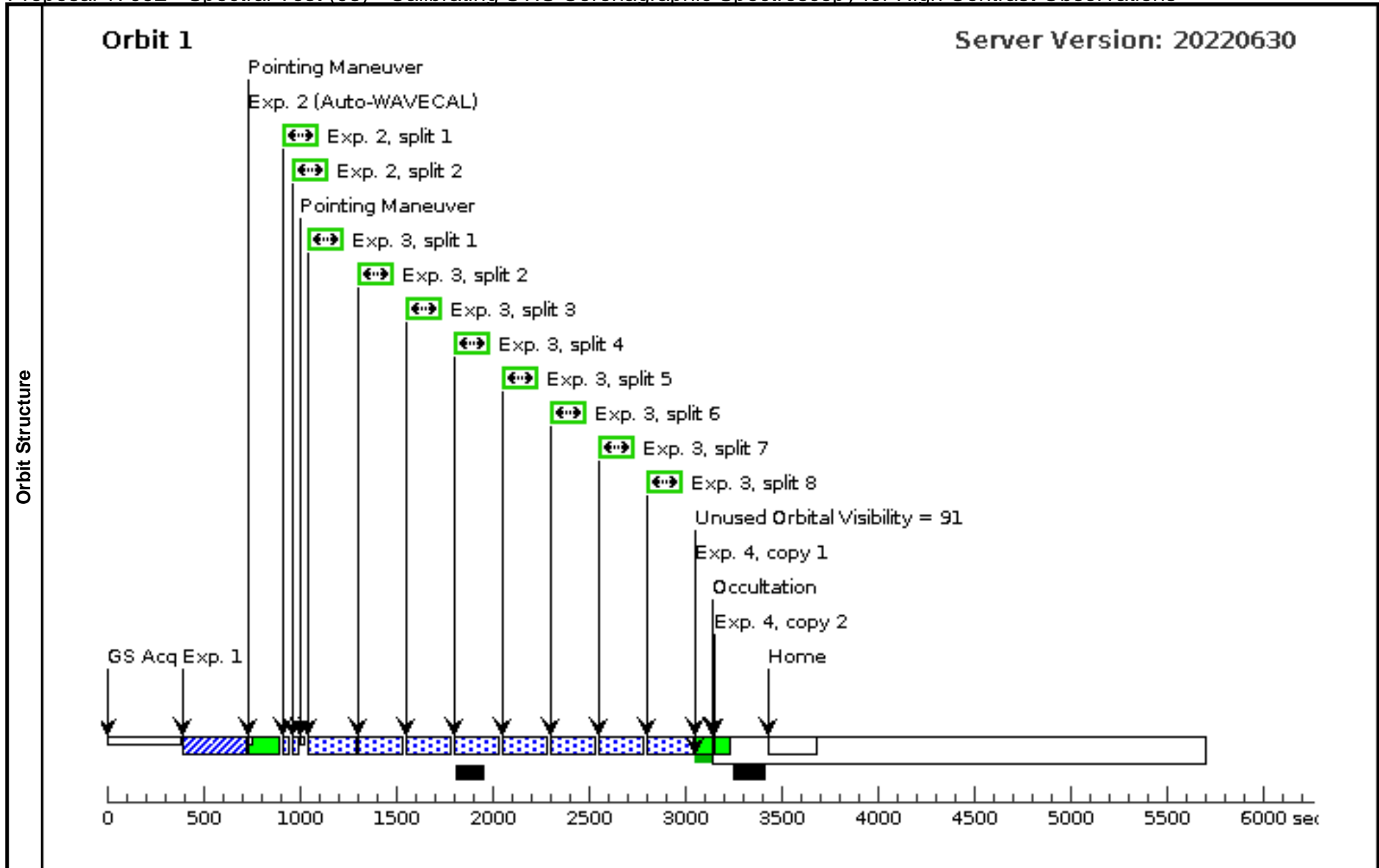




Proposal 17092 - Spectral Test (03) - Calibrating STIS Coronagraphic Spectroscopy for High Contrast Observations

Wed Aug 02 16:00:25 GMT 2023

<b>Visit</b>	<b>Proposal 17092, Spectral Test (03), pi</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: STIS/CCD Special Requirements: ORIENT 215D TO 235 D; ORIENT 35D TO 55 D; GROUP 03,04 WITHIN 2 Orbits <i>Comments: This visit involves placing a close faint white dwarf companion to the primary star within the slit. The companion is predicted to be at a position angle of 178.5 deg and separation of ~0.45 arcsec (as of August 2023), and is moving closer to the primary star. Given the 45 deg relative angle of the STIS detector to the +U3 axis and the additional 1.3 deg offset to the 52x0.2F1 slit, we therefore request the ORIENT constraint to be within one of two sets of possible 20 degree ranges to place the companion either directly above or below the occulting bar within the slit (~225 deg. or ~45 deg., respectively).</i>																																																						
	<b>Diagnosics</b> (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS (Spectral Test (03)) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS																																																						
<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>(3)</td> <td>HD-114174</td> <td>RA: 13 08 51.0230 (197.2125958d) Dec: +05 12 26.07 (5.20724d) Equinox: J2000</td> <td>Proper Motion RA: 0.0057258041935138075 sec of time/yr Proper Motion Dec: -0.680324000040855 arcsec/yr Epoch of Position: 2000.0</td> <td>V=6.81</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>                  Category=STAR                  Description=[DC, G V-IV]</p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(3)	HD-114174	RA: 13 08 51.0230 (197.2125958d) Dec: +05 12 26.07 (5.20724d) Equinox: J2000	Proper Motion RA: 0.0057258041935138075 sec of time/yr Proper Motion Dec: -0.680324000040855 arcsec/yr Epoch of Position: 2000.0	V=6.81	Reference Frame: ICRS																																					
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																																																	
(3)	HD-114174	RA: 13 08 51.0230 (197.2125958d) Dec: +05 12 26.07 (5.20724d) Equinox: J2000	Proper Motion RA: 0.0057258041935138075 sec of time/yr Proper Motion Dec: -0.680324000040855 arcsec/yr Epoch of Position: 2000.0	V=6.81	Reference Frame: ICRS																																																		
<table border="1"> <thead> <tr> <th>#</th> <th>Label (ETC Run)</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Acquisition (STIS.ta.181 5042)</td> <td>(3) HD-114174</td> <td>STIS/CCD, ACQ, F25ND5</td> <td>MIRROR</td> <td></td> <td></td> <td></td> <td>10 Secs (10 Secs) [==&gt;]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>Point Spectrum - HD114174 (STIS.sp.18 66292)</td> <td>(3) HD-114174</td> <td>STIS/CCD, ACCUM, 52X0.2E1</td> <td>G750L 7751 A</td> <td></td> <td></td> <td></td> <td>1.5 Secs (1.5 Secs) [==&gt;(Split 1)] [==&gt;(Split 2)]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>WD System (STIS.sp.18 85862)</td> <td>(3) HD-114174</td> <td>STIS/CCD, ACCUM, 52X0.2F1</td> <td>G750L 7751 A</td> <td>CR-SPLIT=8; GAIN=4</td> <td></td> <td></td> <td>1637 Secs (1637 Secs) [==&gt;(Split 1)] [==&gt;(Split 2)] [==&gt;(Split 3)] [==&gt;(Split 4)] [==&gt;(Split 5)] [==&gt;(Split 6)] [==&gt;(Split 7)] [==&gt;(Split 8)]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>Fringe Flat</td> <td>CCDFLAT</td> <td>STIS/CCD, ACCUM, 52X0.2F1</td> <td>G750L 7751 A</td> <td></td> <td></td> <td></td> <td>[==&gt;(Copy 1)] [==&gt;(Copy 2)]</td> <td>[1]</td> </tr> </tbody> </table> <p><i>Comments: Using the E1 pseudo-aperture to avoid CTE effects.</i></p>						#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1	Acquisition (STIS.ta.181 5042)	(3) HD-114174	STIS/CCD, ACQ, F25ND5	MIRROR				10 Secs (10 Secs) [==>]	[1]	2	Point Spectrum - HD114174 (STIS.sp.18 66292)	(3) HD-114174	STIS/CCD, ACCUM, 52X0.2E1	G750L 7751 A				1.5 Secs (1.5 Secs) [==>(Split 1)] [==>(Split 2)]	[1]	3	WD System (STIS.sp.18 85862)	(3) HD-114174	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=8; GAIN=4			1637 Secs (1637 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] [==>(Split 5)] [==>(Split 6)] [==>(Split 7)] [==>(Split 8)]	[1]	4	Fringe Flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A				[==>(Copy 1)] [==>(Copy 2)]	[1]
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																														
1	Acquisition (STIS.ta.181 5042)	(3) HD-114174	STIS/CCD, ACQ, F25ND5	MIRROR				10 Secs (10 Secs) [==>]	[1]																																														
2	Point Spectrum - HD114174 (STIS.sp.18 66292)	(3) HD-114174	STIS/CCD, ACCUM, 52X0.2E1	G750L 7751 A				1.5 Secs (1.5 Secs) [==>(Split 1)] [==>(Split 2)]	[1]																																														
3	WD System (STIS.sp.18 85862)	(3) HD-114174	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=8; GAIN=4			1637 Secs (1637 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] [==>(Split 5)] [==>(Split 6)] [==>(Split 7)] [==>(Split 8)]	[1]																																														
4	Fringe Flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A				[==>(Copy 1)] [==>(Copy 2)]	[1]																																														



Proposal 17092 - Spectral Test (04) - Calibrating STIS Coronagraphic Spectroscopy for High Contrast Observations

Wed Aug 02 16:00:25 GMT 2023

Visit	<b>Proposal 17092, Spectral Test (04), pi</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/CCD Special Requirements: GROUP 04.03 WITHIN 2 Orbits									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	HD-115692 Alt Name1: HD114174-PSF-REF	RA: 13 18 41.7563 (199.6739846d) Dec: +07 11 11.57 (7.18655d) Equinox: J2000	Proper Motion RA: -0.01113588792738884 sec of time/yr Proper Motion Dec: 0.052937 arcsec/yr Epoch of Position: 2000.0	V=8.466	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=STAR Description=[G V-IV]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	Acquisition (STIS.ta.188 5914)	(4) HD-115692	STIS/CCD, ACQ, F25ND3	MIRROR				1 Secs (1 Secs) [==>]	[1]
	<i>Comments: Revised 2023-07-27 to use F25ND3 aperture based upon corrected ETC calculations</i>									
	2	Point Spectrum - PSF Ref (STIS.sp.18 66295)	(4) HD-115692	STIS/CCD, ACCUM, 52X0.2E1	G750L 7751 A				2 Secs (2 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
	<i>Comments: Using the E1 pseudo-aperture to avoid CTE effects.</i>									
	3	PSF Ref	(4) HD-115692	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A	CR-SPLIT=2; GAIN=4			1940 Secs (1940 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
	4	Fringe Flat	CCDFLAT	STIS/CCD, ACCUM, 52X0.2F1	G750L 7751 A				[==>(Copy 1)] [==>(Copy 2)]	[1]

