15478 - Resolving a possible problem with the interstellar C60+ assignment

Cycle: 25, Proposal Category: GO

(Availability Mode: AVAILABLE)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HD-195592 NONE WAVE	STIS/CCD	1	31-May-2018 20:01:53.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
02	(2) HD-190603 NONE WAVE	STIS/CCD	1	31-May-2018 20:01:57.0	yes
03	(3) HD-136239 NONE WAVE	STIS/CCD	1	31-May-2018 20:02:00.0	yes
04	(4) HD-168625 NONE WAVE	STIS/CCD	1	31-May-2018 20:02:03.0	yes
05	(5) Q-TAU NONE WAVE	STIS/CCD	1	31-May-2018 20:02:06.0	yes

5 Total Orbits Used

ABSTRACT

New innovations in laboratory spectroscopy at ultra-low temperatures have provided strong evidence for the presence of C60+ (ionized Buckminsterfullerene) in the diffuse interstellar medium (ISM). The attribution of two interstellar absorption bands near 0.96 microns to electronic transitions of C60+ is now quite widely accepted, but irrefutable identification of C60+ requires a match between the wavelengths and the strengths of all five absorption features detectable in the laboratory and in space. Although Walker et al. [10, 20] claimed a ground-based detection of the crucial (third-strongest) 9428 A band towards HD 169454, its presence has been contested [8], and this band has not been conclusively seen in any line-of-sight to-date. Our latest HST observations from early 2018 provide new evidence for the weakness/lack of this band, casting renewed doubt on the C60+ assignment. To confirm this preliminary HST result, we request urgent observations of additional heavily-reddened interstellar sightlines to fully disentangle the stellar spectrum and provide a reliable measurement of the 9428/9577 band strength ratio. These data (combined with our previous HST observations) are required in order to rigorously confirm or reject a match between the interstellar and laboratory C60+ features.

OBSERVING DESCRIPTION

The target stars will be acquired at the center of the 52x0.1" slit (at row 512) then moved to CCD row 300 for the start of the STIS-scan routine. After an initial fringe flat exposure, each target star will be exposed while scanning up the slit by 36" to row 1000 (scan rates are all less than the maximum FGS tracking rate of 4.8"/sec). After readout, the star will be repositioned at row 300 and a second identical science exposure will be performed. Next, a sequence of two contemporaneous flat-field exposures will be obtained (without moving the slit mechanism), followed by two additional STIS-scan exposures of the target star. Additional wavecal and fringe flats will be obtained during occultation to improve the flat-field statistics and accuracy of the wavelength scale.

The exposure times are designed to reach a total S/N (summed over four exposures) of ~> 1000 per column (allowing for ~10% flux losses due to scattered light not accounted for by the ETC). As a result of STIS scanning, the total star counts per exposure (with <~1e6 counts per dispersion bin) will be spread over 700 (spatial) CCD rows instead of the 7 rows assumed by the ETC. Consequently, counts per pixel per exposure will be <~1500, which is well within the CCD linearity threshold for GAIN=1

Visit

Proposal 15478, Visit 01 Fri Jun 01 00:02:08 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: (none)

Diagnostics

(Visit 01) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 01) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 01) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 01) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-195592	RA: 20 30 34.9690 (307.6457042d) Dec: +44 18 54.86 (44.31524d) Equinox: J2000		V=7.08 J=5.1	Reference Frame: ICRS

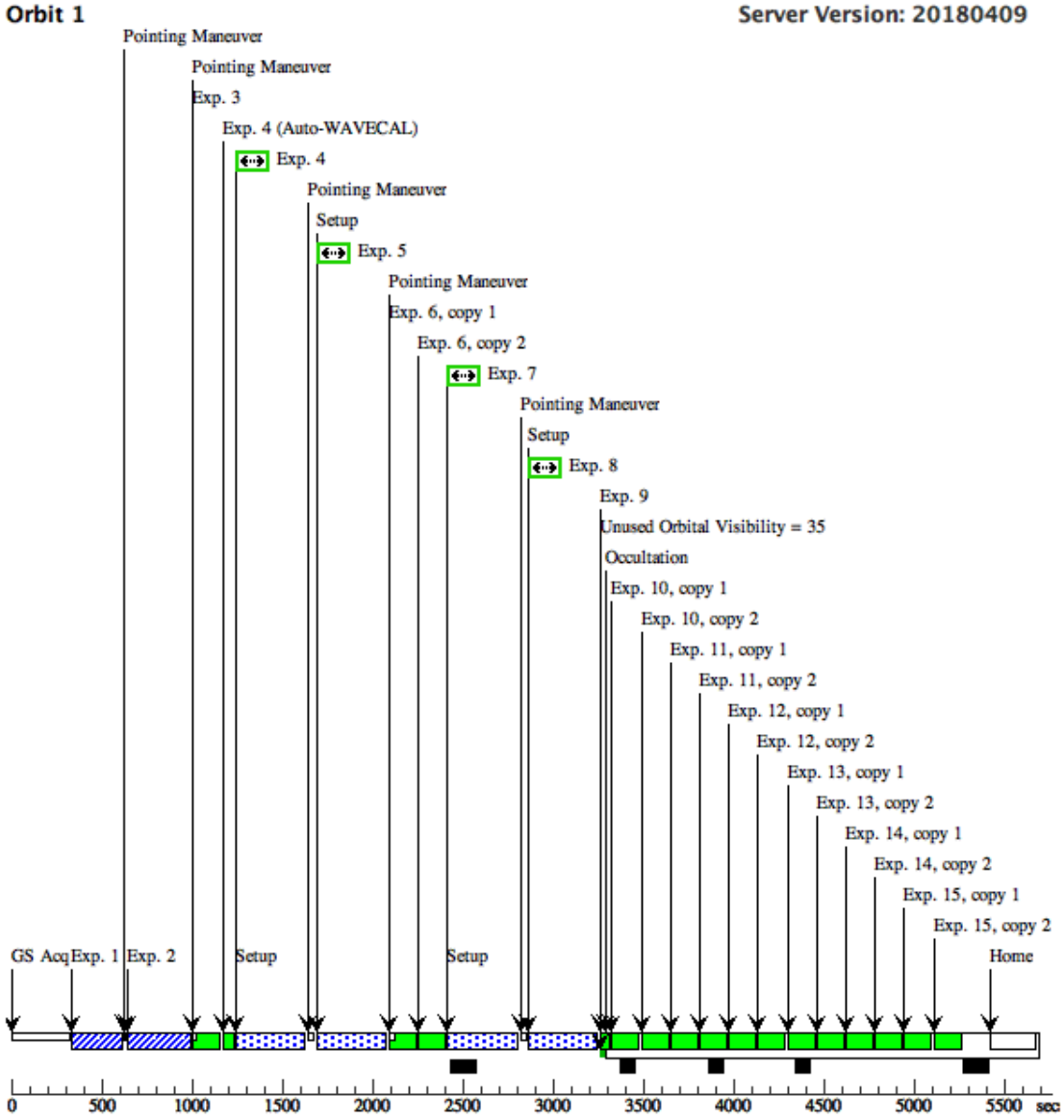
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[MAIN SEQUENCE O]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ HD195592 (STIS.im.1163870)	(1) HD-195592	STIS/CCD, ACQ, F28X50OIII	MIRROR	GAIN=4			1 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ-peak HD195592 (STIS.sp.1166532)	(1) HD-195592	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 9336 A	GAIN=4			1 Secs (1 Secs) *[==>]*	***[1]***
3	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs (80 Secs) *[==>]*	***[1]***
4	HD195592 scan up (STIS.sp.1166531)	(1) HD-195592	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 04,90.0 Degrees,Forward		345 Secs (345 Secs) *[==>]*	***[1]***
5	HD195592 scan up (STIS.sp.1166531)	(1) HD-195592	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 04,90.0 Degrees,Forward		345 Secs (345 Secs) *[==>]*	***[1]***
6	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	HD195592 scan up (STIS.sp.1166531)	(1) HD-195592	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 04,90.0 Degrees,Forward		345 Secs (345 Secs) *[==>]*	***[1]***
8	HD195592 scan up (STIS.sp.1166531)	(1) HD-195592	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 04,90.0 Degrees,Forward		345 Secs (345 Secs) *[==>]*	***[1]***
9	Extra wavecal	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A				10 Secs (10 Secs) *[==>]*	***[1]***
10	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
11	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
12	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
13	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
14	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

	15	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN	80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Orbit Structure



Proposal 15478 - Visit 02 - Resolving a possible problem with the interstellar C60+ assignment

Visit

Proposal 15478, Visit 02

Fri Jun 01 00:02:08 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: (none)

Diagnostics

(Visit 02) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 02) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 02) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 02) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	HD-190603	RA: 20 04 36.1742 (301.1507258d) Dec: +32 13 6.95 (32.21860d) Equinox: J2000		V=5.65 J=4.5	Reference Frame: ICRS

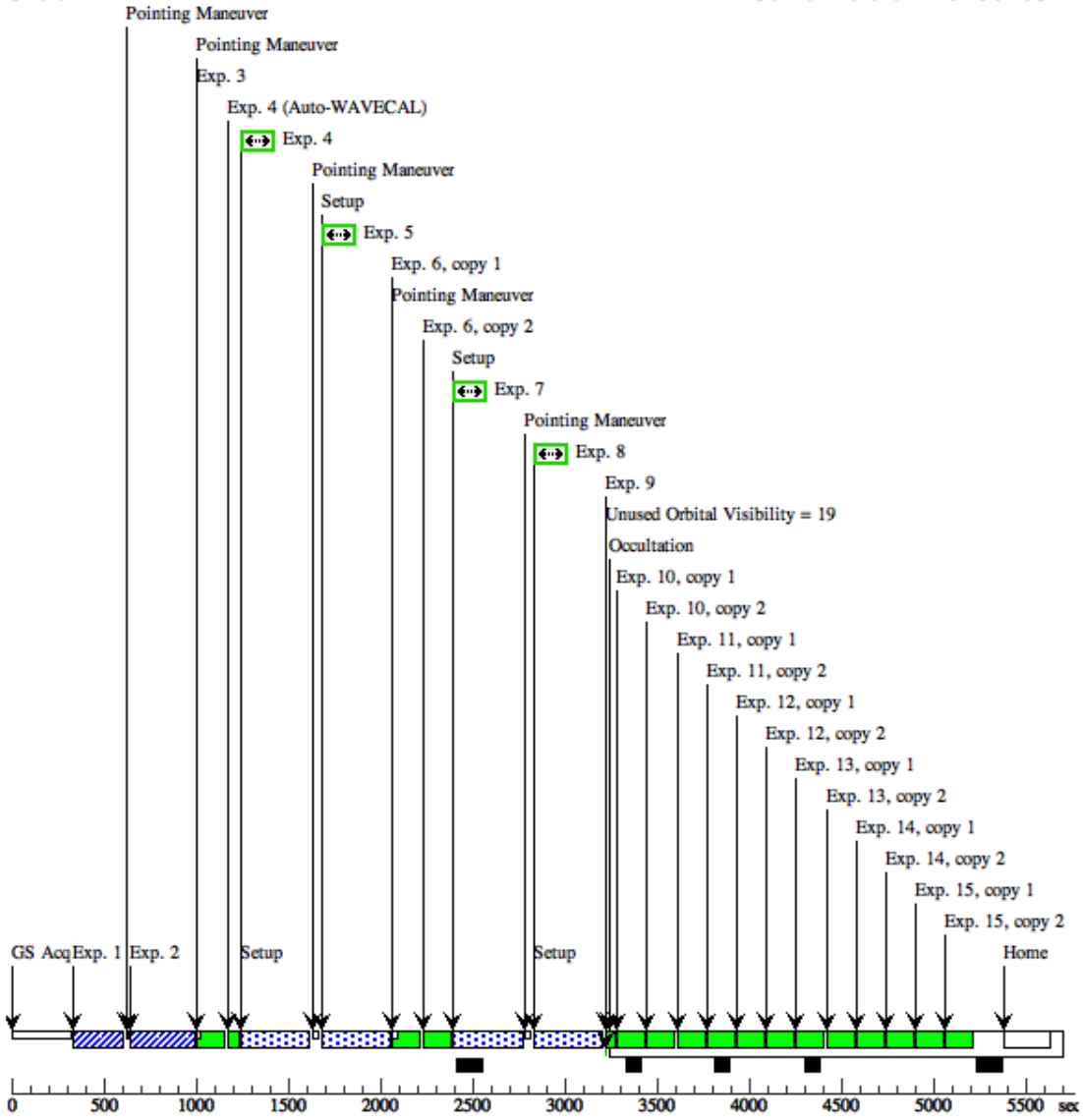
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B0-B2 III-I]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ HD190603 (STIS.im.1163872)	(2) HD-190603	STIS/CCD, ACQ, F28X50OIII	MIRROR	GAIN=4			0.5 Secs (0.5 Secs) *[==>]*	***[1]***
2	ACQ-peak HD190603 (STIS.sp.1166534)	(2) HD-190603	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 9336 A	GAIN=4			1 Secs (1 Secs) *[==>]*	***[1]***
3	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs (80 Secs) *[==>]*	***[1]***
4	HD190603 scan up (STIS.sp.1166535)	(2) HD-190603	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 075,90.0 Degrees,Forward		335 Secs (335 Secs) *[==>]*	***[1]***
5	HD190603 scan up (STIS.sp.1166535)	(2) HD-190603	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 075,90.0 Degrees,Forward		335 Secs (335 Secs) *[==>]*	***[1]***
6	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	HD190603 scan up (STIS.sp.1166535)	(2) HD-190603	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 075,90.0 Degrees,Forward		335 Secs (335 Secs) *[==>]*	***[1]***
8	HD190603 scan up (STIS.sp.1166535)	(2) HD-190603	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 075,90.0 Degrees,Forward		335 Secs (335 Secs) *[==>]*	***[1]***
9	Extra wavecal	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A				10 Secs (10 Secs) *[==>]*	***[1]***
10	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
11	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
12	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
13	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
14	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

	15	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN	80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Orbit Structure



Visit

Proposal 15478, Visit 03 Fri Jun 01 00:02:08 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: (none)

Diagnostics

(Visit 03) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 03) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 03) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 03) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

Fixed Targets

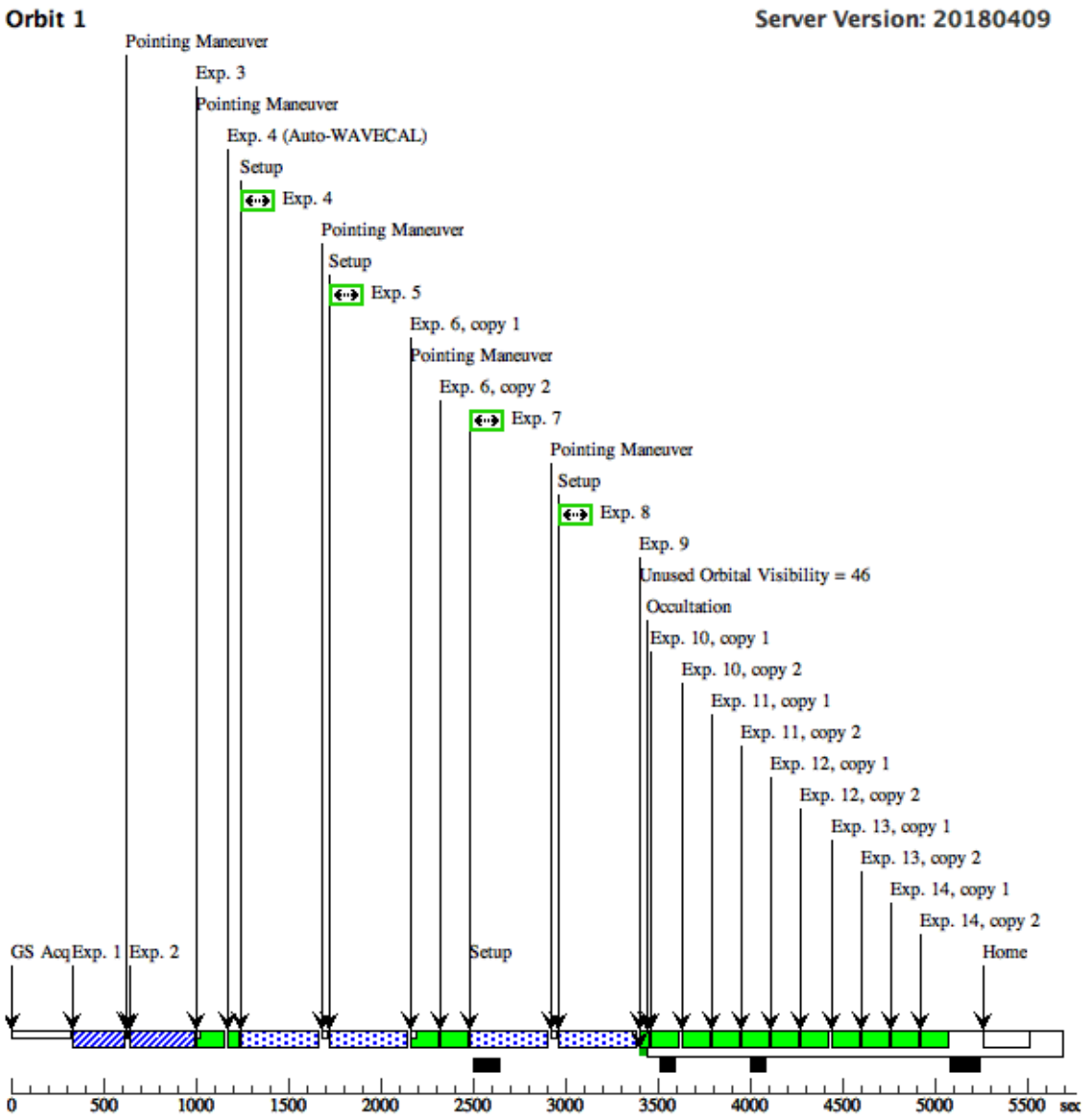
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	HD-136239	RA: 15 22 20.0796 (230.5836650d) Dec: -59 08 49.94 (-59.14721d) Equinox: J2000		V=7.95 J=5.7	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B0-B2 III-I]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ HD136239 (STIS.im.1163876)	(3) HD-136239	STIS/CCD, ACQ, F28X50OIII	MIRROR	GAIN=4			1 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ-peak HD136239 (STIS.sp.1166538)	(3) HD-136239	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 9336 A	GAIN=4			1 Secs (1 Secs) *[==>]*	***[1]***
3	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs (80 Secs) *[==>]*	***[1]***
4	HD136239 scan up (STIS.sp.1166537)	(3) HD-136239	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.0947,90.0 Degrees,Forward		380 Secs (380 Secs) *[==>]*	***[1]***
5	HD136239 scan up (STIS.sp.1166537)	(3) HD-136239	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.0947,90.0 Degrees,Forward		380 Secs (380 Secs) *[==>]*	***[1]***
6	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	HD136239 scan up (STIS.sp.1166537)	(3) HD-136239	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.0947,90.0 Degrees,Forward		380 Secs (380 Secs) *[==>]*	***[1]***
8	HD136239 scan up (STIS.sp.1166537)	(3) HD-136239	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.0947,90.0 Degrees,Forward		380 Secs (380 Secs) *[==>]*	***[1]***
9	Extra wavecal	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A				10 Secs (10 Secs) *[==>]*	***[1]***
10	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
11	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
12	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
13	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
14	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 15478, Visit 04 Fri Jun 01 00:02:08 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: (none)

Diagnostics

(Visit 04) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 04) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 04) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

(Visit 04) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	HD-168625	RA: 18 21 19.5480 (275.3314500d) Dec: -16 22 26.06 (-16.37391d) Equinox: J2000		V=8.37 J=5.1	Reference Frame: ICRS

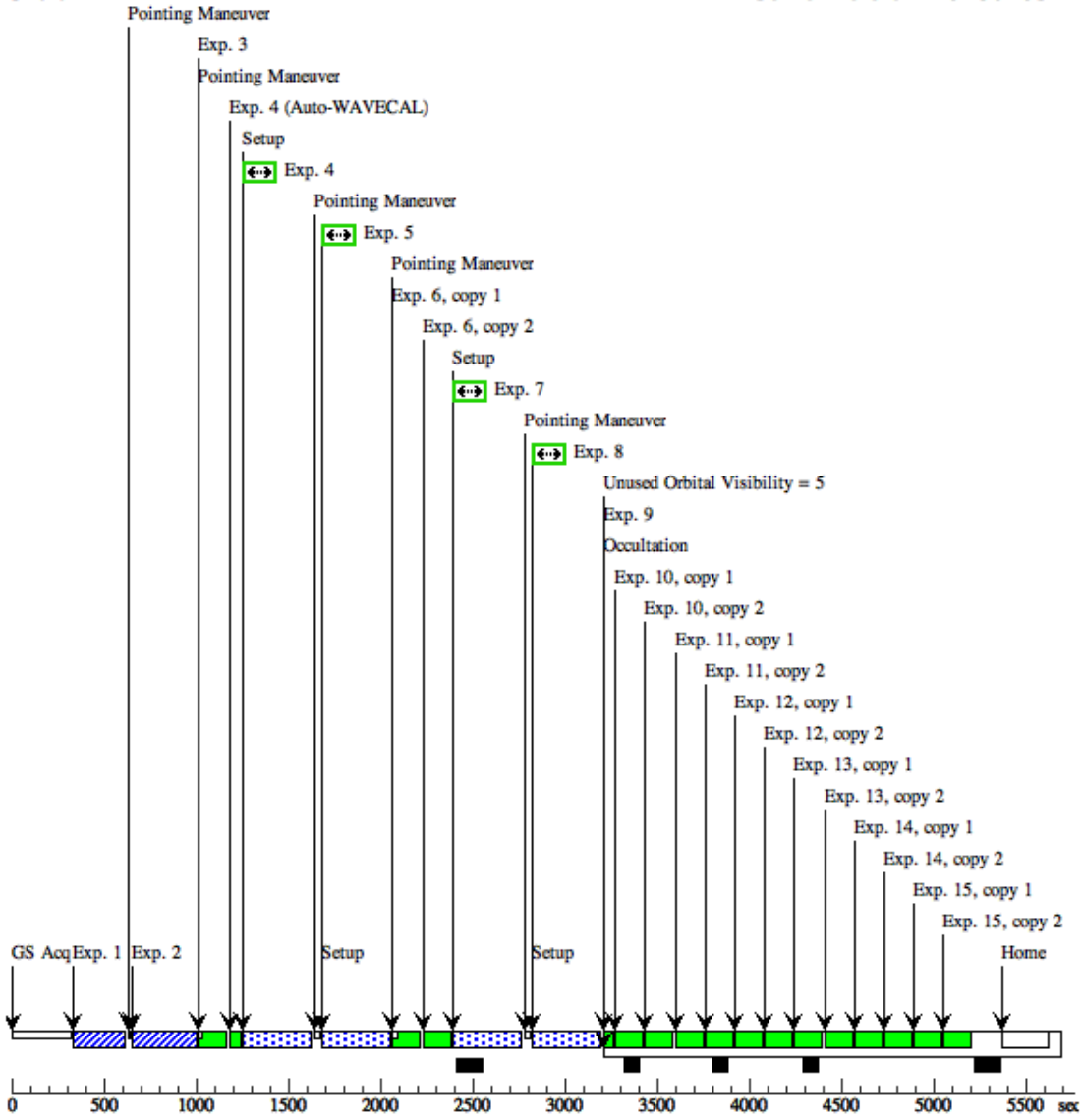
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B6-B9.5 III-I]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ HD168625 (STIS.im.1163880)	(4) HD-168625	STIS/CCD, ACQ, F28X50OIII	MIRROR	GAIN=4			3 Secs (3 Secs) *[==>]*	*[1]*
2	ACQ-peak HD168625 (STIS.sp.1166539)	(4) HD-168625	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 9336 A	GAIN=4			1 Secs (1 Secs) *[==>]*	*[1]*
3	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs (80 Secs) *[==>]*	*[1]*
4	HD168625 scan up (STIS.sp.1166540)	(4) HD-168625	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 09,90.0 Degrees,Forward		330 Secs (330 Secs) *[==>]*	*[1]*
5	HD168625 scan up (STIS.sp.1166540)	(4) HD-168625	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 09,90.0 Degrees,Forward		330 Secs (330 Secs) *[==>]*	*[1]*
6	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
7	HD168625 scan up (STIS.sp.1166540)	(4) HD-168625	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 09,90.0 Degrees,Forward		330 Secs (330 Secs) *[==>]*	*[1]*
8	HD168625 scan up (STIS.sp.1166540)	(4) HD-168625	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 09,90.0 Degrees,Forward		330 Secs (330 Secs) *[==>]*	*[1]*
9	Extra wavecal	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A				10 Secs (10 Secs) *[==>]*	*[1]*
10	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
11	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
12	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
13	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
14	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

	15	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN	80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Orbit Structure



Visit

Proposal 15478, Visit 05 Fri Jun 01 00:02:08 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: (none)

Diagnostics

(Visit 05) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION
(Visit 05) Warning (Orbit Planner): MISSING FRINGE FLAT CALIBRATION
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Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	Q-TAU	RA: 03 45 12.4958 (56.3020658d)	Proper Motion RA: 21.24 mas/yr	V=4.3	Reference Frame: ICRS
		Dec: +24 28 2.21 (24.46728d)	Proper Motion Dec: -40.56 mas/yr	J=4.5	
		Equinox: J2000	Epoch of Position: 2000		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[B6-B9.5 V-IV]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ Q Tau (STIS.im.11 63884)	(5) Q-TAU	STIS/CCD, ACQ, F28X50OIII	MIRROR				0.2 Secs (0.2 Secs) *[==>]*	***[1]***
2	ACQ-peak Q Tau (STIS.sp.11 66541)	(5) Q-TAU	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 9336 A				1 Secs (1 Secs) *[==>]*	***[1]***
3	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs (80 Secs) *[==>]*	***[1]***
4	Q Tau scan up (STIS.sp.11 66542)	(5) Q-TAU	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 125,90.0 Degrees,Forward		320 Secs (320 Secs) *[==>]*	***[1]***
5	Q Tau scan up (STIS.sp.11 66542)	(5) Q-TAU	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 125,90.0 Degrees,Forward		320 Secs (320 Secs) *[==>]*	***[1]***
6	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
7	Q Tau scan up (STIS.sp.11 66542)	(5) Q-TAU	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 125,90.0 Degrees,Forward		320 Secs (320 Secs) *[==>]*	***[1]***
8	Q Tau scan up (STIS.sp.11 66542)	(5) Q-TAU	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	CR-SPLIT=NO; GAIN=1	POS TARG 0,-12; SPATIAL SCAN 0.1 125,90.0 Degrees,Forward		320 Secs (320 Secs) *[==>]*	***[1]***
9	Extra wavecal	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A				10 Secs (10 Secs) *[==>]*	***[1]***
10	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
11	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
12	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
13	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
14	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN			80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

	15	Flats	NONE	STIS/CCD, ACCUM, 52X0.1	G750M 9336 A	LAMP=TUNGSTEN	80 Secs X 2 (160 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure