16930 - ULLYSES Sextans A COS Spectroscopy

Cycle: 29, Proposal Category: GO

(Availability Mode: SUPPORTED)

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?*
1C	(1) SEXTANS-A-GHN-S2	COS/FUV COS/NUV	3	08-Apr-2022 21:00:24.0	yes
1D	(1) SEXTANS-A-GHN-S2	COS/FUV COS/NUV	3	08-Apr-2022 21:00:25.0	yes
1E	(1) SEXTANS-A-GHN-S2	COS/FUV COS/NUV	3	08-Apr-2022 21:00:26.0	yes
2C	(2) SEXTANS-A-GHN-S4	COS/FUV COS/NUV	5	08-Apr-2022 21:00:27.0	yes
3C	(3) SEXTANS-A-GHN-S8	COS/FUV COS/NUV	3	08-Apr-2022 21:00:28.0	yes
3D	(3) SEXTANS-A-GHN-S8	COS/FUV COS/NUV	3	08-Apr-2022 21:00:29.0	yes

20 Total Orbits Used

ABSTRACT

The Space Telescope Science Institute (STScI) Director has decided to devote up to 1000 orbits of Director's Discretionary time in observing Cycles 27-29 to a new Hubble Ultraviolet Legacy program focused on star formation and associated stellar physics. This new program, ULLYSES (UV Legacy Library of Young Stars as Essential Standards), will provide a UV spectroscopic reference sample of young (< 10 Myr) high- and low-mass stars. It will target over ~150 OB stars in the Magellanic Clouds and lower metallicity galaxies in the Local Group, and ~40 T Tauri stars and brown dwarfs in the Milky Way. In addition, ULLYSES will monitor 4 typical T Tauri stars over different rotational phases through at least three rotation periods, and over timescales of months to years. The resulting library will provide template spectra of massive stars at metallicities substantially below the well studied, while the low mass sample will cover a wide range of ages, accretion rates, and masses, including objects down to well below 0.5 M_sun. The legacy of this large UV dataset on the first 10 Myr of stellar evolution will be enhanced by complementary datasets obtained by the scientific community. In addition to the core goals of the program related to stellar astrophysics of low and high mass stars, this data will also enable exciting science in the fields of ISM, CGM, jets, and exoplanets. ULLYSES will be modeled after the Frontier Fields program: all data obtained will be non-proprietary. The implementation team at STScI is developing high-level science data products and a sophisticated database and website for disseminating data from the ULLYSES program and ancillary datasets for the ULLYSES target sample from space and ground-based facilities.

OBSERVING DESCRIPTION

This proposal includes3 massive stars in Sextans A, to be observed with G140L/800, so as to maximize the wavelength coverage of these faint targets.

For all targets, exposure times were computed to reach S/N = 15 at 1130 A.

Model spectra for each target were obtained from fitting the WFC3 F225W, F275W, F336W, F475W, and F814W SED from program 16104 with CMFGEN and Castelli & Kurucz (2004) stellar models with LMC Average dust extinction.

The actual implemented exposure times may be adjusted to efficiently use HST orbits, but should always provide at least 80% of the desired time as defined by the above requirements.

Additional details about the scientific motivation and technical implementation strategy of the ULLYSES observations can be found at http://www.stsci.edu/stsci-research/research-topics-and-programs/ullyses. The ULLYSES program is based on the recommendations of a working group led by Sally Oey; the full text of that group's report can be found at http://www.stsci.edu/files/live/sites/www/files/home/stsci-

research/research-topics-and-programs/ullyses/_documents/HSTUV-report-ULLYSES.pdf.

Visit

Proposal 16930, Visit 1C, implementation Sat Apr 09 01:00:30 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 1C; SEXTANS-A-GHN-S2; P/COS approved for submission; P/JRD 08/02/22 ; intrev: complete ; P/AF 26/03/22
vcheck; Enter targ name & Inst. & Resp. Sci.; SEXTANS-A-GHN-S2 ; COS ; JRD
vcheck; ETC numbers entered in APT?; Yes
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; Yes
vcheck; Selected ACQ strategy?; Yes
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; Yes
vcheck; Visual BOT check for stars not in catalog?; Yes
vcheck; Orbit packing finalized?; Yes
vcheck; Buffer times optimized?; Yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
Allocated COS orbits = 9

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SEXTANS-A-GHN-S2	RA: 10 10 58.5800 (152.7440833d) Dec: -04 43 28.94 (-4.72471d) Equinox: J2000		V=20.8 F225W Vega=18.606; F275W Vega=18.828; F336W Vega=19.28; F475W Vega=20.88; F814W Vega=20.854	Reference Frame: ICRS

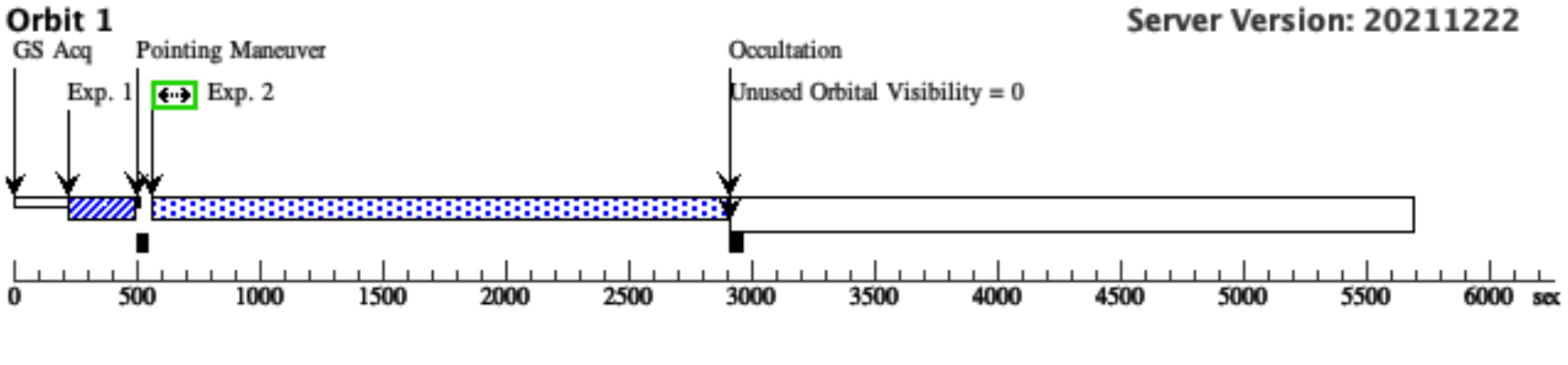
Comments: Photometry from program 16104
Spt and E(B-V) originally from Garcia+2019: O3-5Vz; E(B-V) =0.22
Revised/adjusted using WFC3 photometry to O5V with E(B-V) = 0.13

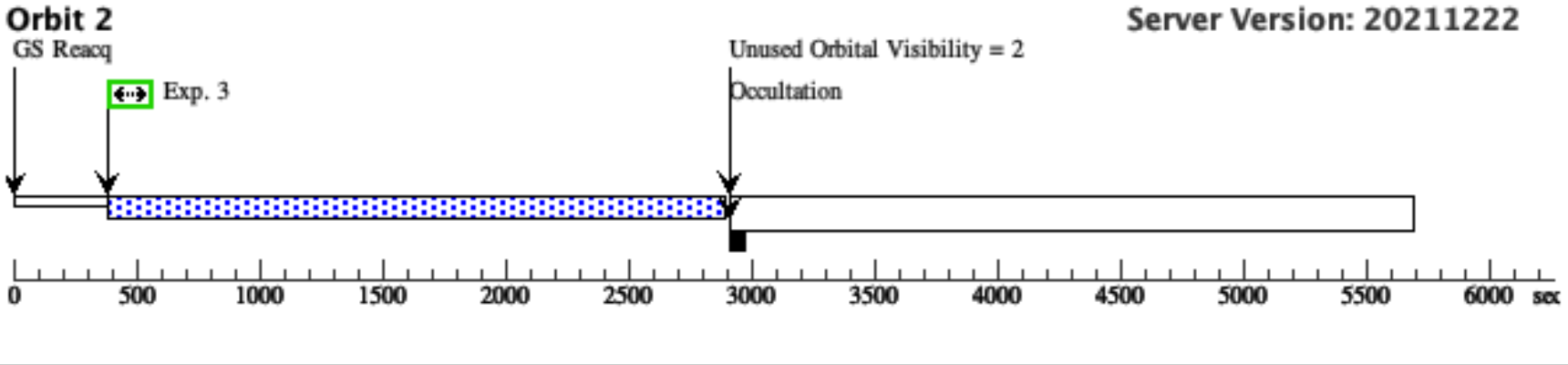
tstatus; SEXTANS-A-GHN-S2; P/COS approved for submission; S/ins N/A; P/JRD 02/08/2022; S/?? 0MM/DD/YYYY)
tcheck; APT/SIMBAD target names: [VPW98] 1670 ; Gaia DR2 3779987321206922624; JRD 2/08/22
tcheck; Target info verification status?; complete ; JRD 2/08/22
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; JRD 2/08/22
tcheck; Adopted SED compared to Observations?; OK ; JRD 2/08/22
Category=EXT-STAR
Description=[MAIN SEQUENCE O]
Extended=NO

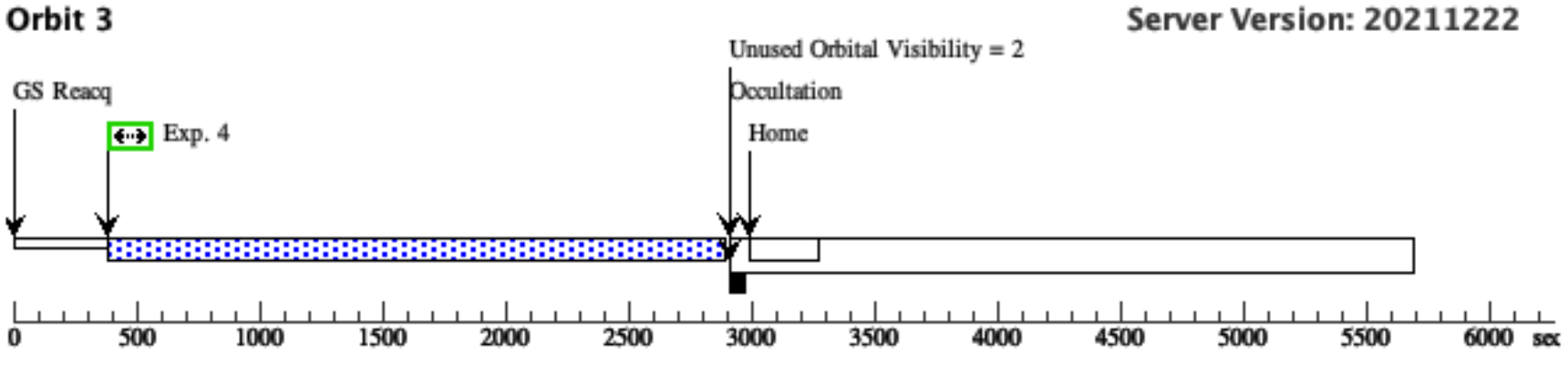
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1742839)	(1) SEXTANS-A-GHN-S2	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				20 Secs (20 Secs) *[==>]*	***[1]***
	Comments: 2 unknown field stars are in the PSA macro-aperture. Those stars are fainter than the target. Since the target is safe for PSA/MIRRORA, so are the unknown field stars. *Exptime computed from model SED that includes stellar emission and dust extinction. Two stellar models examined: WM-Basic and C&K04. Files for SED models are sed_WM-B_SEXTANS-A-GHF-S2.fits and sed_CK_SEXTANS-A-GHF-S2.fits*								
2	FP1 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=1; BUFFER-TIME=5000			2135 Secs (2135 Secs) *[==>]*	***[1]***
	Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*								
3	FP2 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=2; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[2]***
	Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*								
4	FP3 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=3; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[3]***
	Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*								

Orbit Structure







Visit

Proposal 16930, Visit 1D, implementation Sat Apr 09 01:00:30 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 1D; SEXTANS-A-GHN-S2; P/COS approved for submission ; P/JRD 08/02/22 ;intrev: complete; P/AF 26/03/22
vcheck; Enter targ name & Inst. & Resp. Sci.; SEXTANS-A-GHN-S2 ; COS ; JRD
vcheck; ETC numbers entered in APT?; Yes
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; Yes
vcheck; Selected ACQ strategy?; Yes
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; Yes
vcheck; Visual BOT check for stars not in catalog?; Yes
vcheck; Orbit packing finalized?; Yes
vcheck; Buffer times optimized?; Yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
Allocated COS orbits = 9

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SEXTANS-A-GHN-S2	RA: 10 10 58.5800 (152.7440833d) Dec: -04 43 28.94 (-4.72471d) Equinox: J2000		V=20.8 F225W Vega=18.606; F275W Vega=18.828; F336W Vega=19.28; F475W Vega=20.88; F814W Vega=20.854	Reference Frame: ICRS

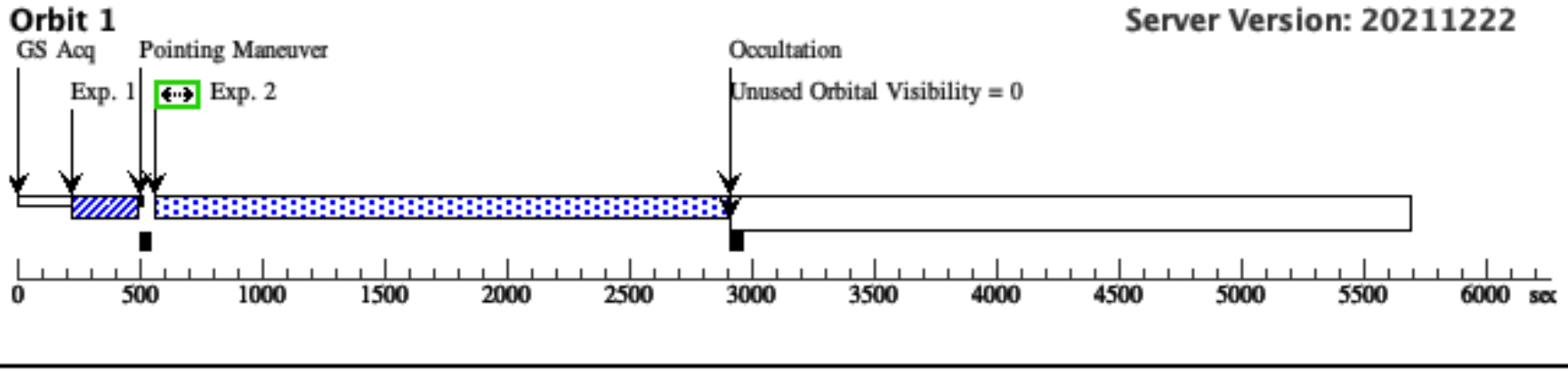
Comments: Photometry from program 16104
Spt and E(B-V) originally from Garcia+2019: O3-5Vz; E(B-V) =0.22
Revised/adjusted using WFC3 photometry to O5V with E(B-V) = 0.13

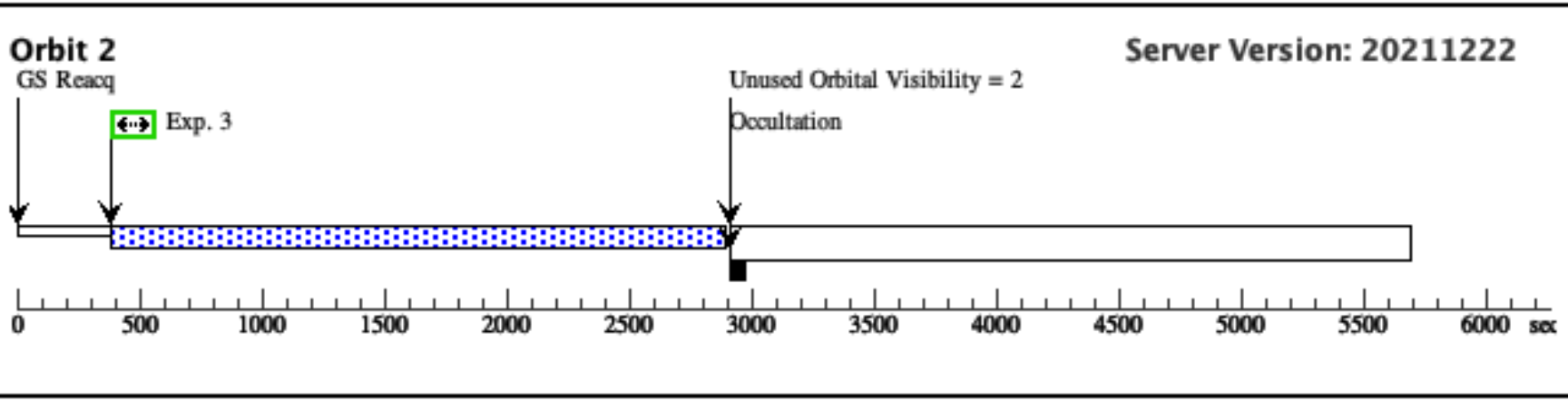
tstatus; SEXTANS-A-GHN-S2; P/COS approved for submission; S/ins N/A; P/JRD 02/08/2022; S/?? 0MM/DD/YYYY)
tcheck; APT/SIMBAD target names: [VPW98] 1670 ; Gaia DR2 3779987321206922624; JRD 2/08/22
tcheck; Target info verification status?; complete ; JRD 2/08/22
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; JRD 2/08/22
tcheck; Adopted SED compared to Observations?; OK ; JRD 2/08/22
Category=EXT-STAR
Description=[MAIN SEQUENCE O]
Extended=NO

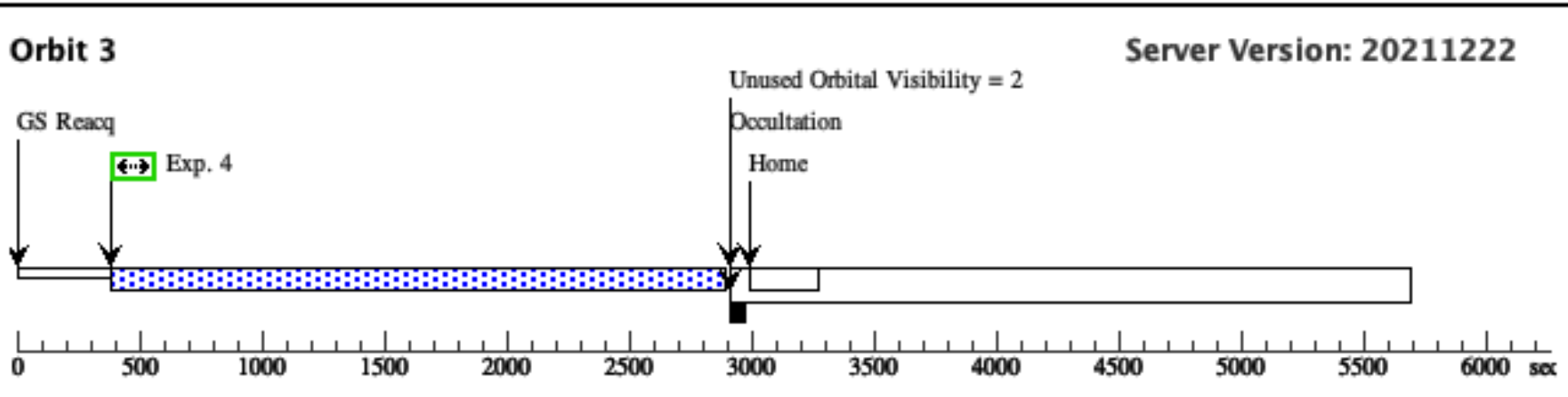
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1742839)	(1) SEXTANS-A-GHN-S2	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				20 Secs (20 Secs) *[==>]*	***[1]***
Comments: 2 unknown field stars are in the PSA macro-aperture. Those stars are fainter than the target. Since the target is safe for PSA/MIRRORA, so are the unknown field stars. *Exptime computed from model SED that includes stellar emission and dust extinction. Two stellar models examined: WM-Basic and C&K04. Files for SED models are sed_WM-B_SEXTANS-A-GHF-S2.fits and sed_CK_SEXTANS-A-GHF-S2.fits*									
2	FP2 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=2; BUFFER-TIME=5000			2135 Secs (2135 Secs) *[==>]*	***[1]***
Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*									
3	FP3 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=3; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[2]***
Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*									
4	FP4 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=4; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[3]***
Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*									

Orbit Structure







Visit

Proposal 16930, Visit 1E, implementation Sat Apr 09 01:00:30 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 1E; SEXTANS-A-GHN-S2; P/COS approved for submission ; P/JRD 08/02/22 ; intrev: complete ; P/AF 26/03/22
vcheck; Enter targ name & Inst. & Resp. Sci.; SEXTANS-A-GHN-S2 ; COS ; JRD
vcheck; ETC numbers entered in APT?; Yes
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; Yes
vcheck; Selected ACQ strategy?; Yes
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; Yes
vcheck; Visual BOT check for stars not in catalog?; Yes
vcheck; Orbit packing finalized?; Yes
vcheck; Buffer times optimized?; Yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
Allocated COS orbits = 9

Diagnostics

(Visit 1E) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SEXTANS-A-GHN-S2	RA: 10 10 58.5800 (152.7440833d) Dec: -04 43 28.94 (-4.72471d) Equinox: J2000		V=20.8 F225W Vega=18.606; F275W Vega=18.828; F336W Vega=19.28; F475W Vega=20.88; F814W Vega=20.854	Reference Frame: ICRS

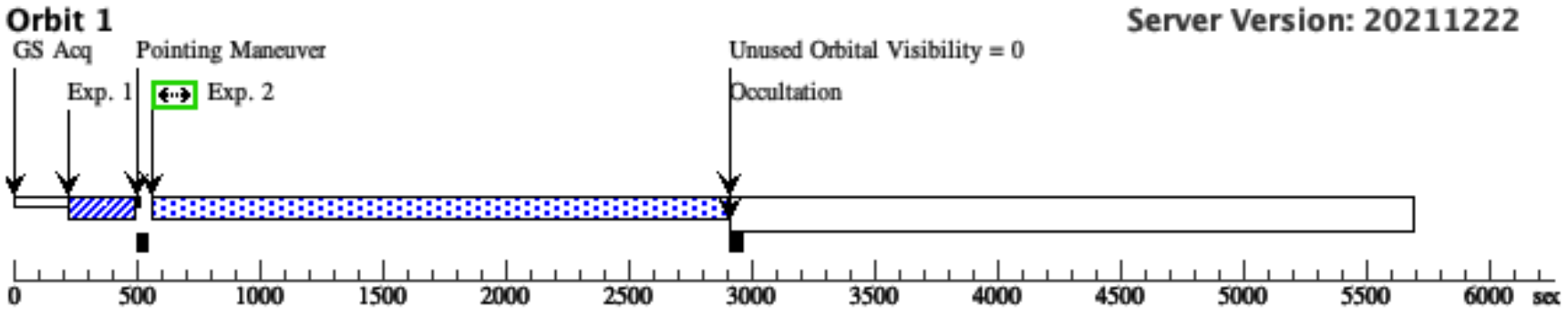
Comments: Photometry from program 16104
Spt and E(B-V) originally from Garcia+2019: O3-5Vz; E(B-V) =0.22
Revised/adjusted using WFC3 photometry to O5V with E(B-V) = 0.13

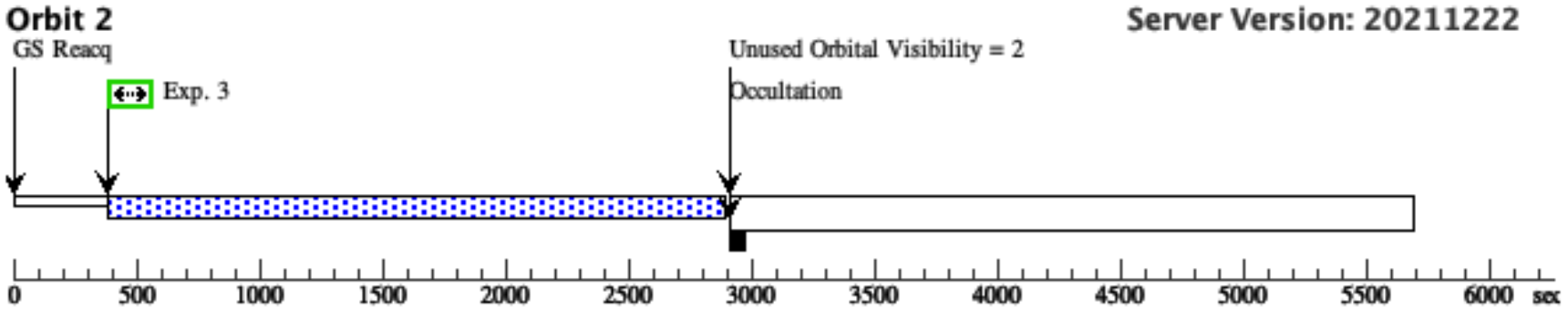
tstatus; SEXTANS-A-GHN-S2; P/COS approved for submission; S/ins N/A; P/JRD 02/08/2022; S/?? 0MM/DD/YYYY)
tcheck; APT/SIMBAD target names: [VPW98] 1670 ; Gaia DR2 3779987321206922624; JRD 2/08/22
tcheck; Target info verification status?; complete ; JRD 2/08/22
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; JRD 2/08/22
tcheck; Adopted SED compared to Observations?; OK ; JRD 2/08/22
Category=EXT-STAR
Description=[MAIN SEQUENCE O]
Extended=NO

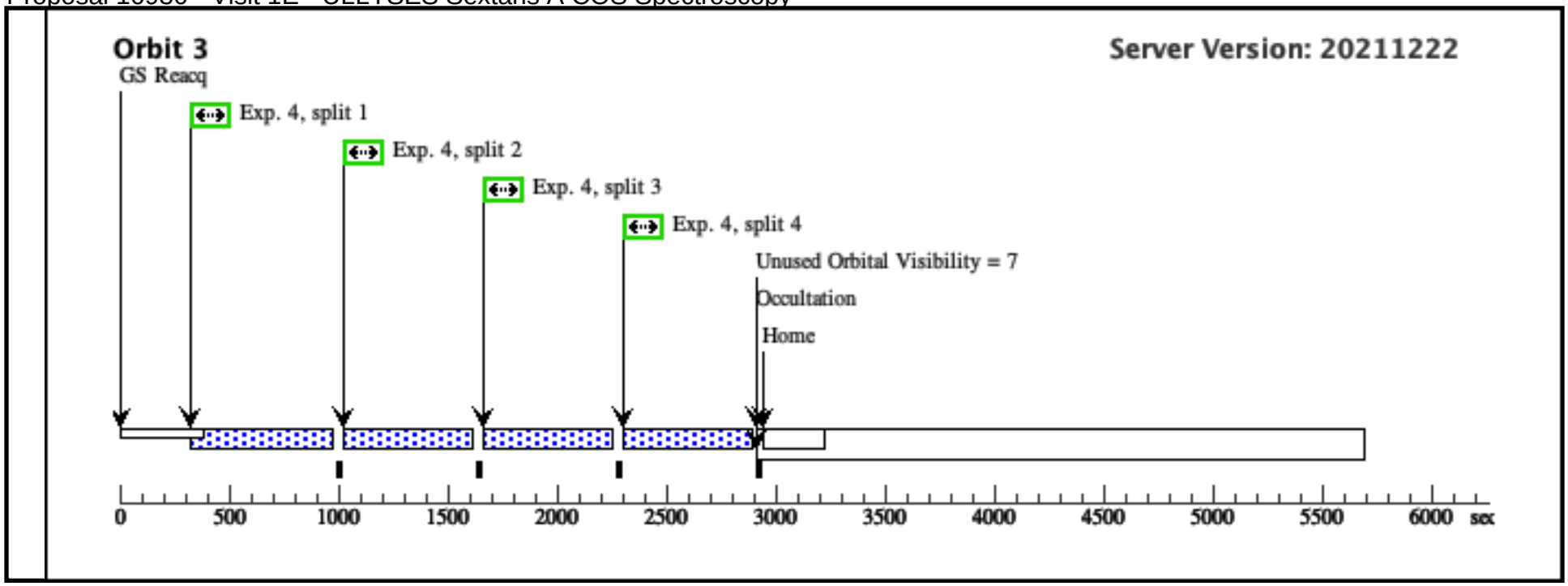
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1742839)	(1) SEXTANS-A-GHN-S2	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				20 Secs (20 Secs) *[==>]*	***[1]***
	Comments: 2 unknown field stars are in the PSA macro-aperture. Those stars are fainter than the target. Since the target is safe for PSA/MIRRORA, so are the unknown field stars. *Exptime computed from model SED that includes stellar emission and dust extinction. Two stellar models examined: WM-Basic and C&K04. Files for SED models are sed_WM-B_SEXTANS-A-GHF-S2.fits and sed_CK_SEXTANS-A-GHF-S2.fits*								
2	FP1 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=1; BUFFER-TIME=5000			2135 Secs (2135 Secs) *[==>]*	***[1]***
	Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*								
3	FP4 (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=4; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[2]***
	Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*								
4	FPALL (COS.sp.1689543)	(1) SEXTANS-A-GHN-S2	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=ALL; BUFFER-TIME=5000			535 Secs (2140 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]* *[==>(Split 4)]*	***[3]***
	Comments: WM-Basic gives 22ks, CK04 gives 23ks *All field stars clear*								

Orbit Structure






Orbit 3
Server Version: 20211222
GS Reacq
Exp. 4, split 1
Exp. 4, split 2
Exp. 4, split 3
Exp. 4, split 4
Unused Orbital Visibility = 7
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16930, Visit 2C, implementation Sat Apr 09 01:00:30 GMT 2022

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 2C; SEXTANS-A-GHN-S4; P/COS approved for submission ; P/JRD 08/02/22 ; intrev: complete ; P/AF 26/03/22
vcheck; Enter targ name & Inst. & Resp. Sci.; SEXTANS-A-GHN-S4 ; COS ; JRD
vcheck; ETC numbers entered in APT?; Yes
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; Yes
vcheck; Selected ACQ strategy?; Yes
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; Yes
vcheck; Visual BOT check for stars not in catalog?; Yes
vcheck; Orbit packing finalized?; Yes
vcheck; Buffer times optimized?; Yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
Allocated COS orbits = 5

Diagnostics

(Visit 2C) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SEXTANS-A-GHN-S4	RA: 10 10 57.8900 (152.7412083d) Dec: -04 43 10.20 (-4.71950d) Equinox: J2000		V=20.9 F225W Vega=18.132; F275W Vega=18.453; F336W Vega=19.039; F475W Vega=20.784; F814W Vega=21.141	Reference Frame: ICRS

Comments: Photometry from program 16104
Spt and E(B-V) originally from Garcia+2019: O6Vz; E(B-V) =0.05

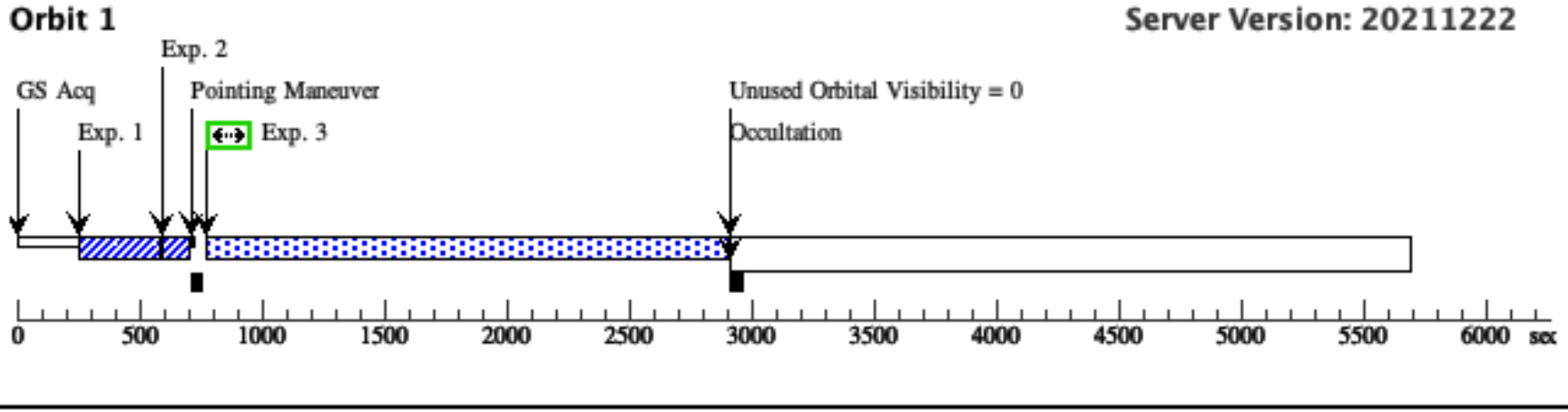
Revised/adjusted using WFC3 photometry to O6V with E(B-V) = 0.045

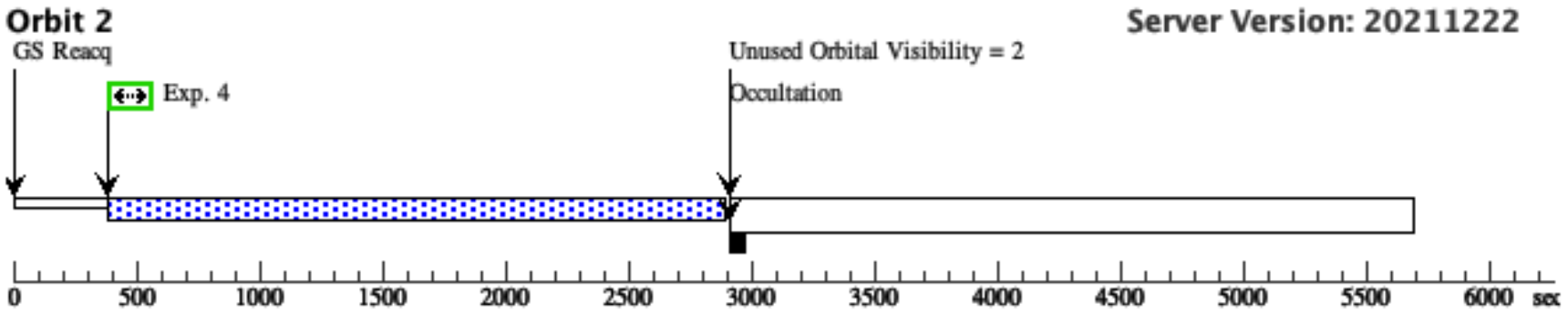
tstatus; SEXTANS-A-GHN-S4; P/COS approved for submission; S/ins N/A; P/JRD 02/08/2022; S/?? 0MM/DD/YYYY)
tcheck; APT/SIMBAD target names: ; ; JRD 2/08/22
tcheck; Target info verification status?; complete ; JRD 2/08/22
tcheck; Coordinates & P.M. updated?; yes - Coordinates from 2007AJ....133.2393M reported in 2019MNRAS.484..422G - PM set to zero; JRD 2/08/22
tcheck; Adopted SED compared to Observations?; OK ; JRD 2/08/22
Category=EXT-STAR
Description=[MAIN SEQUENCE O]
Extended=NO

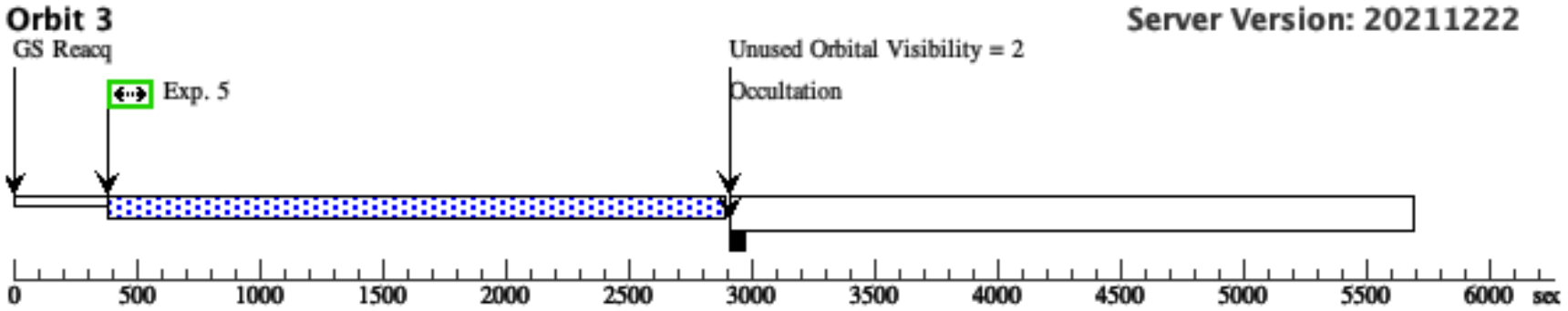
Exposures

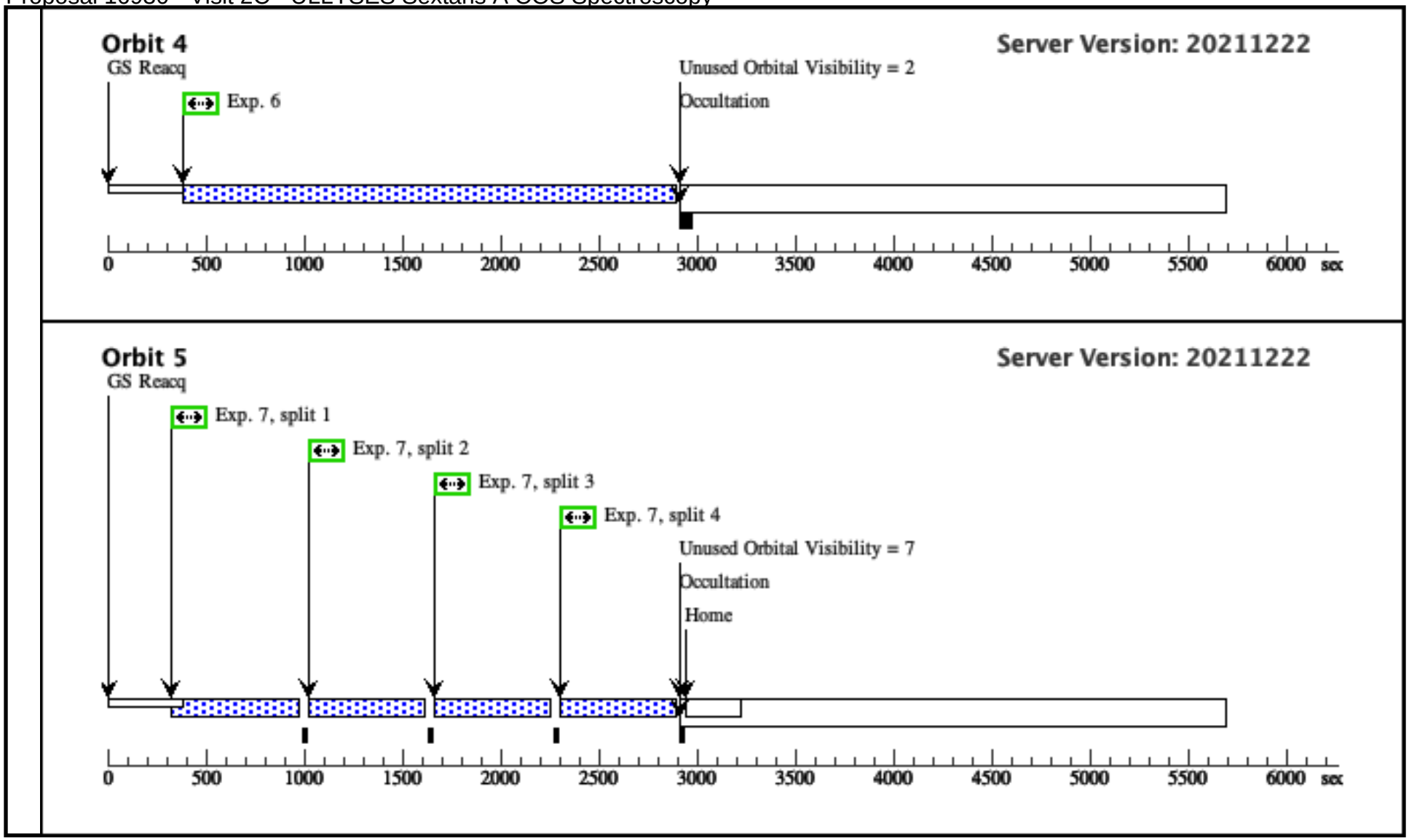
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/SEARCH (COS.ta.1689549)	(2) SEXTANS-A-GHN-S4	COS/NUV, ACQ/SEARCH, PSA	MIRRORA	STEP-SIZE=1.767; SCAN-SIZE=2; CENTER=FLUX-WT			10 Secs (10 Secs) *[==>]*	***[1]***
	Comments: All field stars clear *Exptime computed from model SED that includes stellar emission and dust extinction. Two stellar models examined: WM-Basic and C&K04. Files for SED models are sed_WM-B_SEXTANS-A-GHF-S4.fits and sed_CK_SEXTANS-A-GHF-S4.fits*								
2	ACQ/IMAGE (COS.ta.1689549)	(2) SEXTANS-A-GHN-S4	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				10 Secs (10 Secs) *[==>]*	***[1]***
	Comments: All field stars clear *Exptime computed from model SED that includes stellar emission and dust extinction. Two stellar models examined: WM-Basic and C&K04. Files for SED models are sed_WM-B_SEXTANS-A-GHF-S4.fits and sed_CK_SEXTANS-A-GHF-S4.fits*								
3	FP1 (COS.sp.1689550)	(2) SEXTANS-A-GHN-S4	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=1; BUFFER-TIME=5000			1925 Secs (1925 Secs) *[==>]*	***[1]***
	Comments: WM-Basic gives 10ks, CK04 gives 11ks *All field stars clear*								
4	FP2 (COS.sp.1689550)	(2) SEXTANS-A-GHN-S4	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=2; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[2]***
	Comments: WM-Basic gives 10ks, CK04 gives 11ks *All field stars clear*								
5	FP3 (COS.sp.1689550)	(2) SEXTANS-A-GHN-S4	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=3; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[3]***
	Comments: WM-Basic gives 10ks, CK04 gives 11ks *All field stars clear*								
6	FP4 (COS.sp.1689550)	(2) SEXTANS-A-GHN-S4	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=4; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[4]***
	Comments: WM-Basic gives 10ks, CWM-Basic gives 10ks, CK04 gives 11ks *All field stars clearK04 gives 11ks*								
7	FPALL (COS.sp.1689550)	(2) SEXTANS-A-GHN-S4	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=ALL; BUFFER-TIME=5000			535 Secs (2140 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]* *[==>(Split 4)]*	***[5]***
	Comments: WM-Basic gives 10ks, CK04 gives 11ks *All field stars clear*								

Orbit Structure





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3500
4000
4500
5000
5500
6000
sec
Orbit 5
Server Version: 20211222
GS Reacq
Exp. 7, split 1
Exp. 7, split 2
Exp. 7, split 3
Exp. 7, split 4
Unused Orbital Visibility = 7
Occultation
Home
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500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16930, Visit 3C, implementation Sat Apr 09 01:00:30 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 3C; SEXTANS-A-GHN-S8; P/COS approved for submission ; P/JRD 08/02/22 ; intrev: complete ; P/AF 26/03/22
vcheck; Enter targ name & Inst. & Resp. Sci.; SEXTANS-A-GHN-S8 ; COS ; JRD
vcheck; ETC numbers entered in APT?; Yes
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; Yes
vcheck; Selected ACQ strategy?; Yes
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; Yes
vcheck; Visual BOT check for stars not in catalog?; Yes
vcheck; Orbit packing finalized?; Yes
vcheck; Buffer times optimized?; Yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
Allocated COS orbits = 6

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SEXTANS-A-GHN-S8	RA: 10 11 5.6800 (152.7736667d) Dec: -04 42 13.64 (-4.70379d) Equinox: J2000		V=19.7 F225W Vega=17.526; F275W Vega=17.739; F336W Vega=18.191; F475W Vega=19.721; F814W Vega=19.937	Reference Frame: ICRS

Comments: Photometry from program 16104
Spt and E(B-V) originally from Garcia+2019: B0 I; E(B-V) =0.05

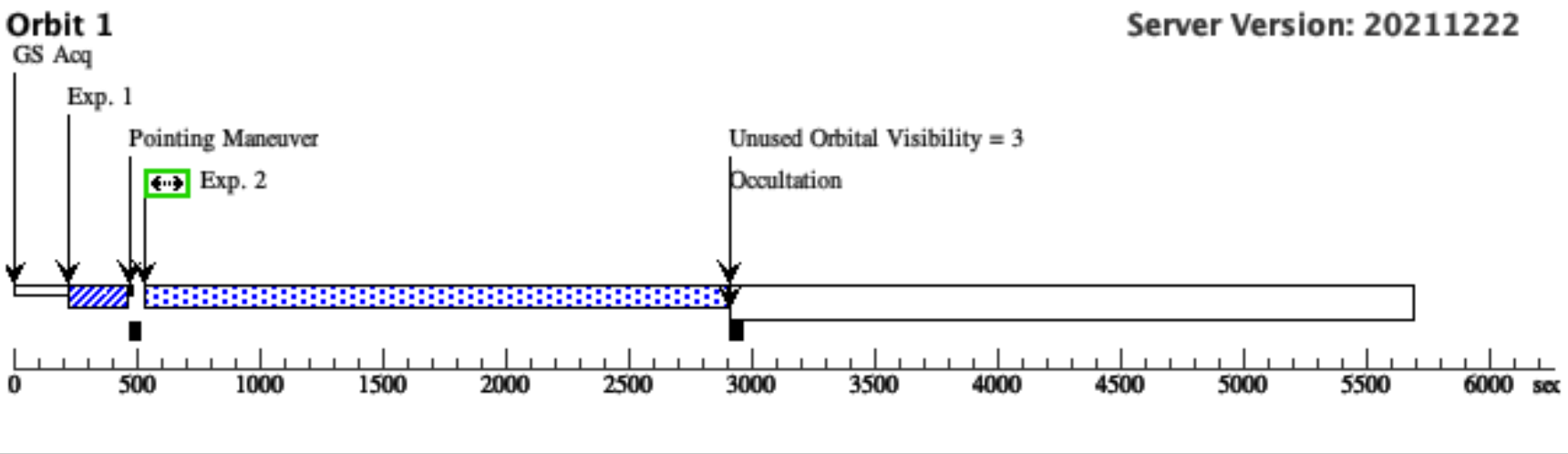
Revised/adjusted using WFC3 photometry to B0 I with E(B-V) = 0.077

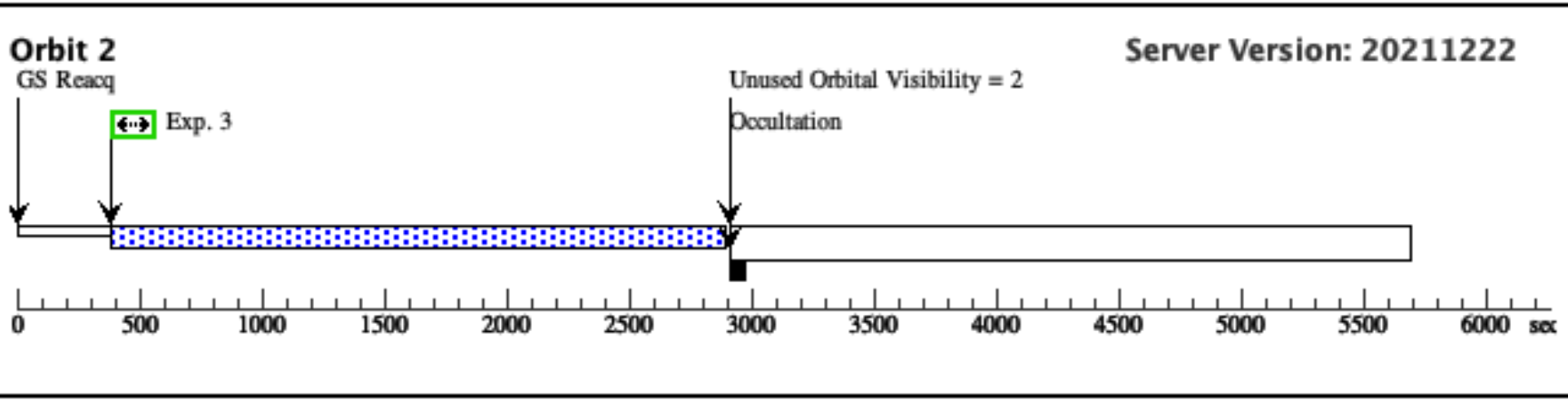
tstatus; SEXTANS-A-GHN-S8; P/COS approved for submission; S/ins N/A; P/JRD 02/08/2022; S/?? 0MM/DD/YYYY)
tcheck; APT/SIMBAD target names: [VPW98] 412 ; Gaia DR2 3779987733523729280; JRD 2/08/22
tcheck; Target info verification status?; complete ; JRD 2/08/22
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; JRD 2/08/22
tcheck; Adopted SED compared to Observations?; OK ; JRD 2/08/22
Category=EXT-STAR
Description=[B0-B2 III-I]
Extended=NO

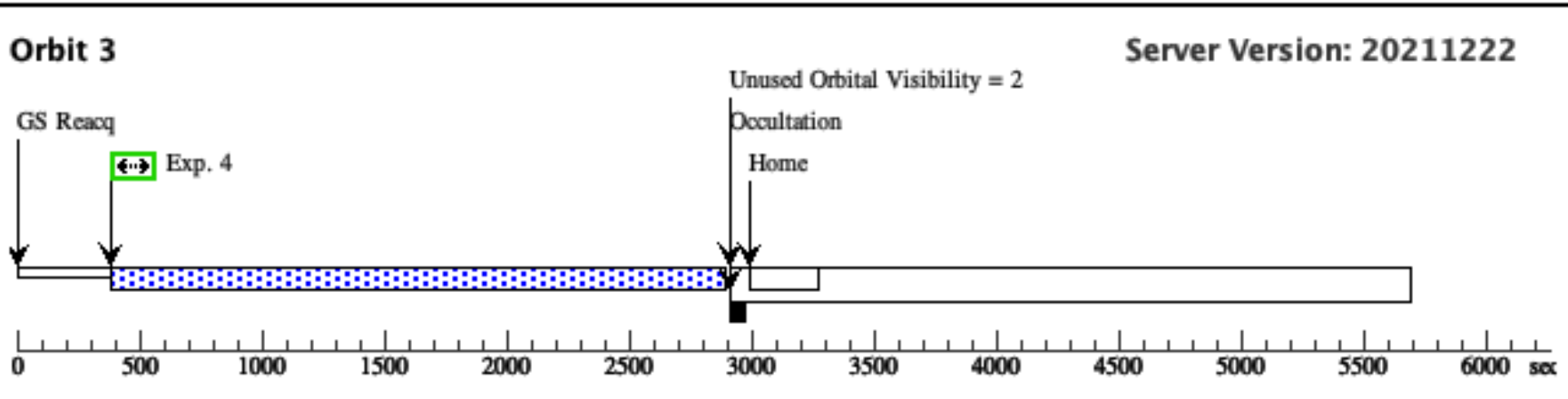
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1689552)	(3) SEXTANS-A-GHN-S8	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	***[1]***
	Comments: Unsafe object reported by GALEX corresponds to 3 massive stars listed in Camacho+2016: OB121, OB523, OB524. The brightest of those is OB523, which was observed as part of GO-14245 (G140L) and GO-15880 (G130M). This is a O9 I star with V = 19.49. This star clears with the ETC under the PSA/MIRRORA configuation, and a Kurucz O9V input model normalized to V = 19.49 without extinction (see COS.ta.1689686). In the FUV, the input spectrum plotted in the ETC in this case is a factor of 2 brighter than the observed G140L spectrum. Therefore, OB121, OB 523 and OB524 are safe to observe with PSA/MIRRORA *Exptime computed from model SED that includes stellar emission and dust extinction. Two stellar models examined: WM-Basic and C&K04. Files for SED models are sed_WM-B_SEXTANS-A-GHF-S8.fits and sed_CK_SEXTANS-A-GHF-S8.fits*								
2	FP1 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=1; BUFFER-TIME=5000			2160 Secs (2160 Secs) *[==>]*	***[1]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								
3	FP2 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=2; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[2]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								
4	FP3 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=3; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[3]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								

Orbit Structure







Visit

Proposal 16930, Visit 3D, implementation Sat Apr 09 01:00:30 GMT 2022

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 3D; SEXTANS-A-GHN-S8; P/COS approved for submission ; P/JRD 08/02/22 ; intrev: complete ; P/AF 26/03/22
vcheck; Enter targ name & Inst. & Resp. Sci.; SEXTANS-A-GHN-S8 ; COS ; JRD
vcheck; ETC numbers entered in APT?; Yes
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; Yes
vcheck; Selected ACQ strategy?; Yes
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; Yes
vcheck; Visual BOT check for stars not in catalog?; Yes
vcheck; Orbit packing finalized?; Yes
vcheck; Buffer times optimized?; Yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
Allocated COS orbits = 6

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SEXTANS-A-GHN-S8	RA: 10 11 5.6800 (152.7736667d) Dec: -04 42 13.64 (-4.70379d) Equinox: J2000		V=19.7 F225W Vega=17.526; F275W Vega=17.739; F336W Vega=18.191; F475W Vega=19.721; F814W Vega=19.937	Reference Frame: ICRS

Comments: Photometry from program 16104
Spt and E(B-V) originally from Garcia+2019: B0 I; E(B-V) =0.05

Revised/adjusted using WFC3 photometry to B0 I with E(B-V) = 0.077

tstatus; SEXTANS-A-GHN-S8; P/COS approved for submission; S/ins N/A; P/JRD 02/08/2022; S/?? 0MM/DD/YYYY)
tcheck; APT/SIMBAD target names: [VPW98] 412 ; Gaia DR2 3779987733523729280; JRD 2/08/22
tcheck; Target info verification status?; complete ; JRD 2/08/22
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; JRD 2/08/22
tcheck; Adopted SED compared to Observations?; OK ; JRD 2/08/22
Category=EXT-STAR
Description=[B0-B2 III-I]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/IMAGE (COS.ta.1689552)	(3) SEXTANS-A-GHN-S8	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				6 Secs (6 Secs) *[==>]*	***[1]***
	Comments: Unsafe object reported by GALEX corresponds to 3 massive stars listed in Camacho+2016: OB121, OB523, OB524. The brightest of those is OB523, which was observed as part of GO-14245 (G140L) and GO-15880 (G130M). This is a O9 I star with V = 19.49. This star clears with the ETC under the PSA/MIRRORA configuation, and a Kurucz O9V input model normalized to V = 19.49 without extinction (see COS.ta.1689686). In the FUV, the input spectrum plotted in the ETC in this case is a factor of 2 brighter than the observed G140L spectrum. Therefore, OB121, OB 523 and OB524 are safe to observe with PSA/MIRRORA *Exptime computed from model SED that includes stellar emission and dust extinction. Two stellar models examined: WM-Basic and C&K04. Files for SED models are sed_WM-B_SEXTANS-A-GHF-S8.fits and sed_CK_SEXTANS-A-GHF-S8.fits*								
2	FP1 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=1; BUFFER-TIME=5000			1024 Secs (1024 Secs) *[==>]*	***[1]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								
3	FP2 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=2; BUFFER-TIME=5000			1024 Secs (1024 Secs) *[==>]*	***[1]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								
4	FP3 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=3; BUFFER-TIME=5000			1169 Secs (1169 Secs) *[==>]*	***[2]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								
5	FP4 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=4; BUFFER-TIME=5000			1169 Secs (1169 Secs) *[==>]*	***[2]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								
6	FP4 (COS.sp.1689553)	(3) SEXTANS-A-GHN-S8	COS/FUV, TIME-TAG, PSA	G140L 800 A	FP-POS=4; BUFFER-TIME=5000			2460 Secs (2460 Secs) *[==>]*	***[3]***
	Comments: WM-Basic gives 15ks, CK04 gives 14ks *All stars (target and fields) clear*								

Orbit Structure