16304 - Digging deep into massive star variability: Do massive stars vary due to internal gravity waves or stellar winds?

Cycle: 28, Proposal Category: GO

(UV Initiative)

(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?*
01	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	5	24-Dec-2020 15:00:28.0	yes
02	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	3	24-Dec-2020 15:00:35.0	yes
03	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	4	24-Dec-2020 15:00:42.0	yes
04	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	5	24-Dec-2020 15:00:51.0	yes
05	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	3	24-Dec-2020 15:00:56.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
06	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	2	24-Dec-2020 15:00:59.0	yes
07	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	2	24-Dec-2020 15:01:01.0	yes
08	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	2	24-Dec-2020 15:01:03.0	yes
11	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	5	24-Dec-2020 15:01:07.0	yes
12	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	3	24-Dec-2020 15:01:09.0	yes
13	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	4	24-Dec-2020 15:01:13.0	yes
14	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	5	24-Dec-2020 15:01:16.0	yes
15	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	3	24-Dec-2020 15:01:18.0	yes
16	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	2	24-Dec-2020 15:01:20.0	yes
17	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	2	24-Dec-2020 15:01:21.0	yes
18	(1) HD-269698 WAVE	STIS/CCD STIS/FUV-MAMA	2	24-Dec-2020 15:01:23.0	yes

52 Total Orbits Used

ABSTRACT

Recent high-precision and high-cadence space-based missions have used asteroseismology to dig deep to the cores of low-mass stars and determine their internal properties. Much of the metals produced throughout the history of the Universe are forged deep in the cores of massive stars, but astonishingly little is known about the core properties of the most massive stars. Recent TESS observations found stochastic variations of blue

supergiants that could be the long-sought signal of internal gravity waves near the convective cores of massive stars. These oscillations may revolutionize our understanding of the cores of the most massive stars, but winds from the same stars vary with similar periods and patterns as these stochastic oscillations. Here, we propose a 26 orbit HST/STIS E140M time-series of the stellar winds from one blue LMC supergiant, SK-67 166, which is observed to have stochastic oscillations on 0.5 day periods and has a rotation rate of 4 days. This proposed time-series will be concurrent with future TESS observations, have the same cadence as TESS, and have a total baseline of 10 days to determine whether the TESS oscillations correspond to changes in the stellar winds or result from internal gravity waves. If the stochastic oscillations are confirmed to be due to internal gravity waves, high-cadence observations and asteroseismology models can determine the interior properties of the most massive stars. If the TESS oscillations are in phase with the stellar wind variations, TESS can determine crucial properties of the elusive stellar winds. Either outcome will dramatically impact our view of the massive stars that drive galactic and chemical evolution.

OBSERVING DESCRIPTION

The goal of this proposal is to get a time series analysis of the FUV spectrum of the LMC O 4Ia star, HD269698. We will measure how the FUV spectral features vary with time and correlate it with concurrent TESS variability observations. Previous TESS observations show that the luminosity of this star varies on a nearly half-day period. We will use these new HST observations to determine how the stellar photosphere varies on multiple half-day periods.

Thus, the main aspect of this proposal is to obtain simultaneous observations of the star with HST/STIS and TESS with the same cadence as the upcoming concurrent TESS over multiple periods of the star. TESS observes HD269698 on both 2- and 30-minute cadences. The HST/STIS Time-Tag observations will allow both cadences to be tested for stellar oscillations. We break up the observations into two segments: (1) observations that aim to densely sample the full temporal period of the star (2) longer more sparsely sampled baseline observations will constrain subsequent low frequency patterns in the photosphere.

The densely sampled configuration will have 15 orbits in 3 visits, one of which is a CVZ orbit, which are 5 orbits each and 1 visit with 3 orbits. These will be as closely sampled as possible (while avoiding the SAA) to sample two full oscillatory periods. The sparsely sampled observations will consist of four visits of 2-orbits each, each sampled between 0-2 days after the densely sampled observations.

The timing is very important to this project. It cannot occur when TESS is not observing this object. TESS will continuously observe the object every 2 and 30 minutes from November 19th, 2020 to December 17th 2020. The 2-minute cadence of TESS is a crucial reason why the TIME-TAG

observations are required. Further, the TIME-TAG observations are required to exactly match the TESS and HST observations in time.

The first segment of densely packed observations requires nearly contiguous observations of the star and will require a Continuous Viewing Zone orbit. To optimize continuous temporal coverage, we have exposures that are as close to the 40-minute maximum of wavelength calibration and fit within each orbit. This will enable the STIS observations to be as closely aligned in time with the TESS observations as possible. We require wavelength calibrations between each of these exposures to ensure proper relative wavelength calibrations.

There will be one 3-orbit visit immediately after the 5 orbit visits to complete the required full oscillatory period of the star. This visit must be as close in time to the CVZ orbits as possible to sample the full oscillatory period. We will obtain the wavelength calibration while the object is not observable.

The sparsely sampled configuration will consist of 4 visits each of 2-orbits. These sparsely sampled orbits will have 1 exposure on the first orbit and 1 8-minute exposure to finish the first orbit, and 2 exposures on the second orbit. This will enable the STIS observations to be as closely aligned in time with the TESS observations.

We will use the STIS E140M grating with the 0.2x0.2 slit. We will use the time-tag mode and perform a wavelength calibration after each long observation to ensure proper relative wavelength calibration which is crucial to compare the temporal variations of the stellar features.

We calculated the required exposure times from previous IUE and FOS observations of this star which observe a flux of 2e-12 erg/s/cm/A at 1370A. This will deliver a signal-to-noise of 36 at 1370A in each 40-minute exposure. Using the TIME-TAG observations, we will break these 40-minute exposures up to sample the TESS observations. Even for a 2 minute observation, which matches the shortest TESS cadence, the ETC predicts a signal-to-noise ratio at 1370 of 8. The STIS ETC gives the expected buffer time of 163, thus we take the total buffer time of 4/5ths this to be 130.

Since we are using the 0.2x0.2 slit, we will require precise pointing. Thus, on the first orbit of each visit we will first perform an Acq followed by an Acq/PEAK in imaging mode (undispersed light) with the 0.06x0.2 apeture. To determine the exposure times on the observations we use the STIS ETC with the observed V-band magnitude of 12.22, the observed E(B-V) = 0.10, and a Castelli-Kurucz O5V 41000 model with the same observed stellar temperature as the proposed star.

During the long orbis, we will perform another Acq/PEAK to recenter the star within the slit. This occurs in the middle of the third orbit. This will

ensure that the object always remains centered.

Visit

Proposal 16304, First Densely sampled visit (01), scheduling Thu Dec 24 20:01:24 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 12-JAN-2021:20:00:00 AND 13-JAN-2021:05:00:00; VISIBILITY INTERVAL 89 M

Diagnostics

(First Densely sampled visit (01)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

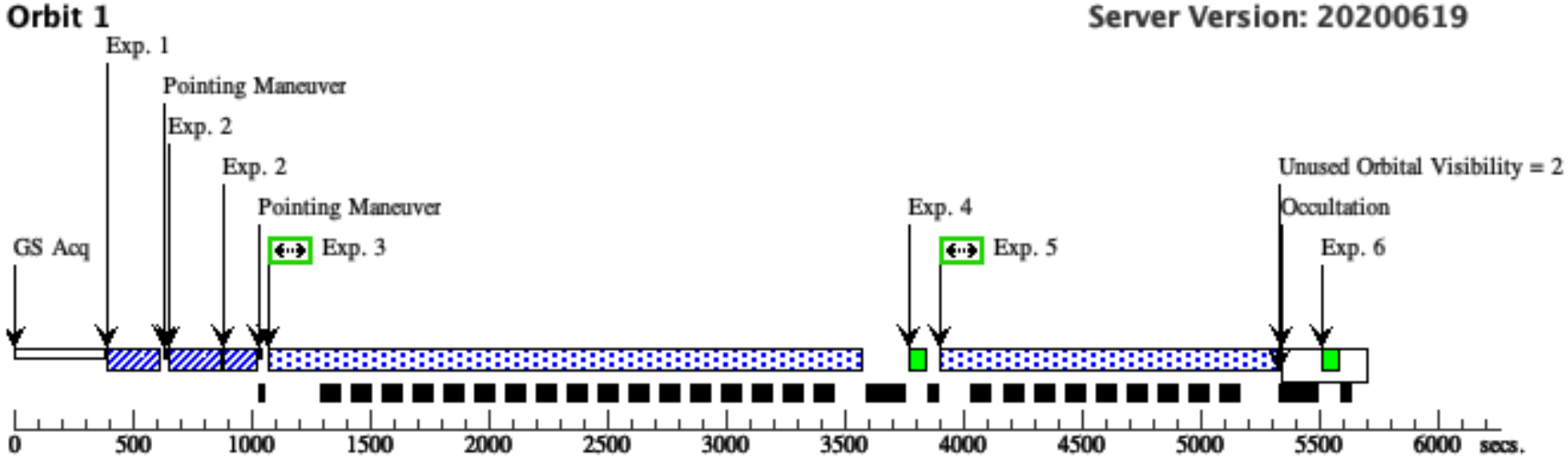
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

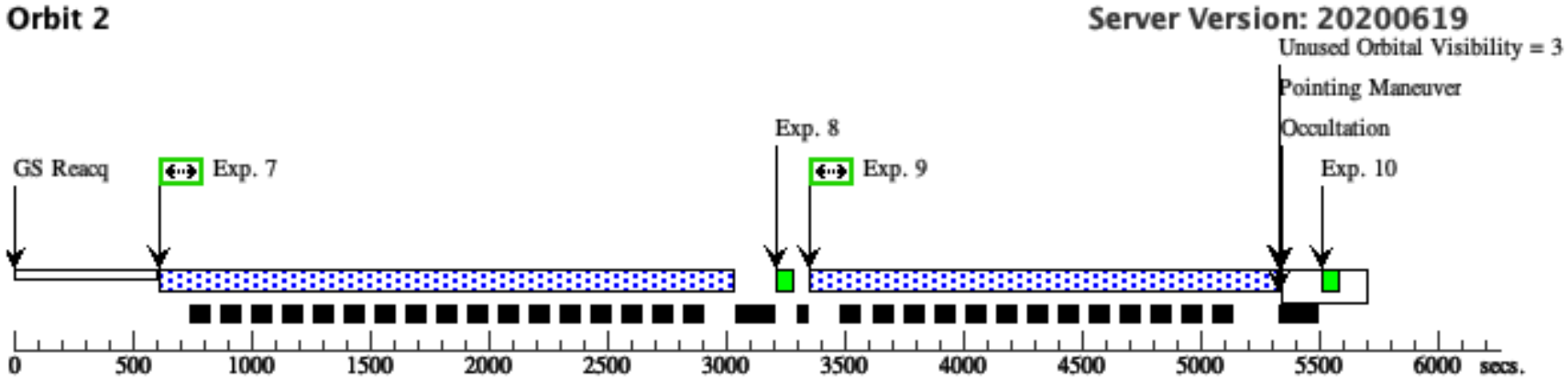
Exposures

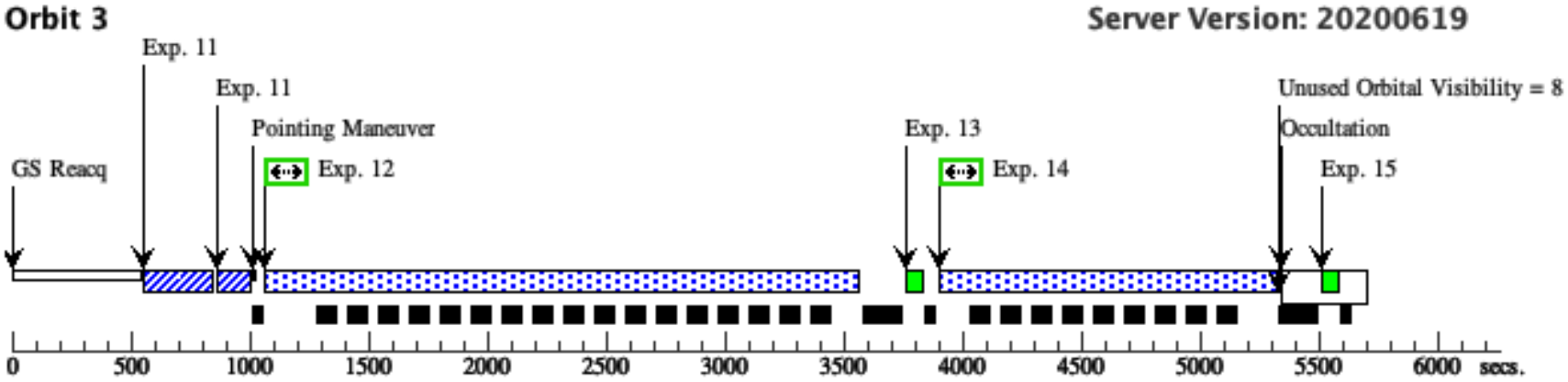
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1	Sequence 1-6 Non-Int in First Densely sampled visit (01)	.1 Secs (0.1 Secs) *[==>]*	*[1]*
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR			Sequence 1-6 Non-Int in First Densely sampled visit (01)	.3 Secs (0.3 Secs) *[==>]*	*[1]*
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130		Sequence 1-6 Non-Int in First Densely sampled visit (01)	2400 Secs (2400 Secs) *[==>]*	*[1]*
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 1-6 Non-Int in First Densely sampled visit (01)	*[==>]*	*[1]*
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130		Sequence 1-6 Non-Int in First Densely sampled visit (01)	1400 Secs (1400 Secs) *[==>]*	*[1]*
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 1-6 Non-Int in First Densely sampled visit (01)	*[==>]*	*[1]*
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130		Sequence 7-10 Non-Int in First Densely sampled visit (01)	2400 Secs (2400 Secs) *[==>]*	*[2]*
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 7-10 Non-Int in First Densely sampled visit (01)	*[==>]*	*[2]*
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130		Sequence 7-10 Non-Int in First Densely sampled visit (01)	1950 Secs (1950 Secs) *[==>]*	*[2]*
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 7-10 Non-Int in First Densely sampled visit (01)	*[==>]*	*[2]*
11	Re-Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR			Sequence 11-15 Non-Int in First Densely sampled visit (01)	.3 Secs (0.3 Secs) *[==>]*	*[3]*
12	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130		Sequence 11-15 Non-Int in First Densely sampled visit (01)	2400 Secs (2400 Secs) *[==>]*	*[3]*
13	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 11-15 Non-Int in First Densely sampled visit (01)	*[==>]*	*[3]*
14	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130		Sequence 11-15 Non-Int in First Densely sampled visit (01)	1400 Secs (1400 Secs) *[==>]*	*[3]*
15	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 11-15 Non-Int in First Densely sampled visit (01)	*[==>]*	*[3]*
16	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO		Sequence 16-19 Non-Int in First Densely sampled visit (01)	2400 Secs (2400 Secs) *[==>]*	*[4]*
17	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 16-19 Non-Int in First Densely sampled visit (01)	*[==>]*	*[4]*

	18	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO	Sequence 16-19 Non-Int in First Densely sampled visit (01)	1950 Secs (1950 Secs) *[==>]*	***[4]***
	19	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 16-19 Non-Int in First Densely sampled visit (01)	*[==>]*	***[4]***
	20	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO	Sequence 20-23 Non-Int in First Densely sampled visit (01)	2400 Secs (2400 Secs) *[==>]*	***[5]***
	21	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 20-23 Non-Int in First Densely sampled visit (01)	*[==>]*	***[5]***
	22	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO	Sequence 20-23 Non-Int in First Densely sampled visit (01)	1700 Secs (1700 Secs) *[==>]*	***[5]***
	23	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 20-23 Non-Int in First Densely sampled visit (01)	*[==>]*	***[5]***

Orbit Structure



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Exp. 11
Pointing Maneuver
GS Reacq
Exp. 12
Exp. 13
Exp. 14
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Occultation
Exp. 15
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1000
1500
2000
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3500
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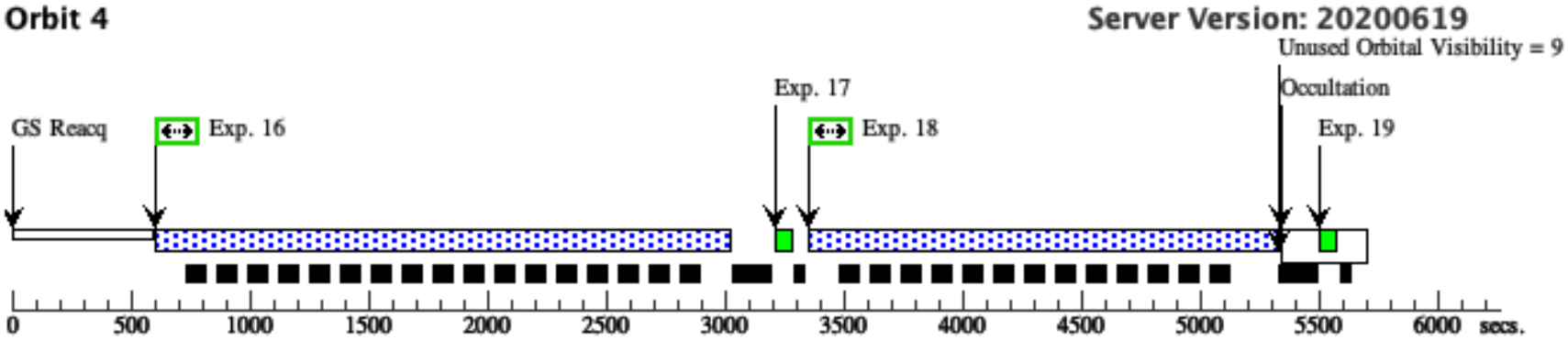
6000
secs.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Unused Orbital Visibility = 9
Exp. 17
Occultation
GS Reacq
Exp. 16
Exp. 18
Exp. 19
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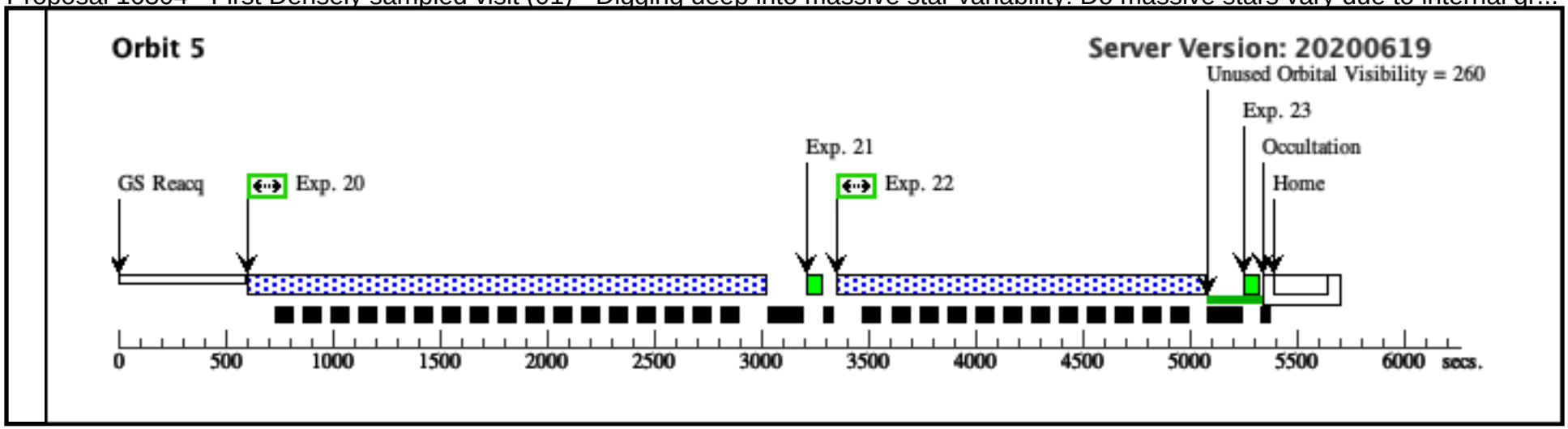
6000
secs.


Orbit 5
Server Version: 20200619
Unused Orbital Visibility = 260
GS Reacq
Exp. 20
Exp. 21
Exp. 22
Exp. 23
Occultation
Home
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500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
secs.

Visit

Proposal 16304, Second Densely sampled CVZ visit (02), scheduling Thu Dec 24 20:01:24 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: CVZ; BETWEEN 14-JAN-2021:18:00:00 AND 15-JAN-2021:04:00:00

Diagnostics

(Second Densely sampled CVZ visit (02)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

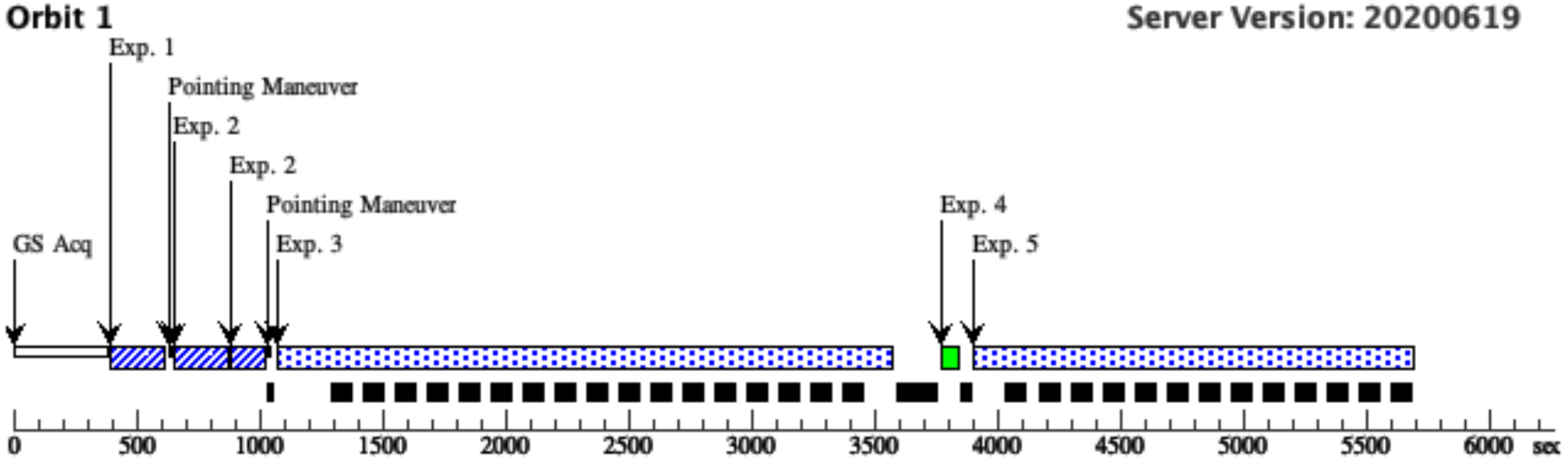
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

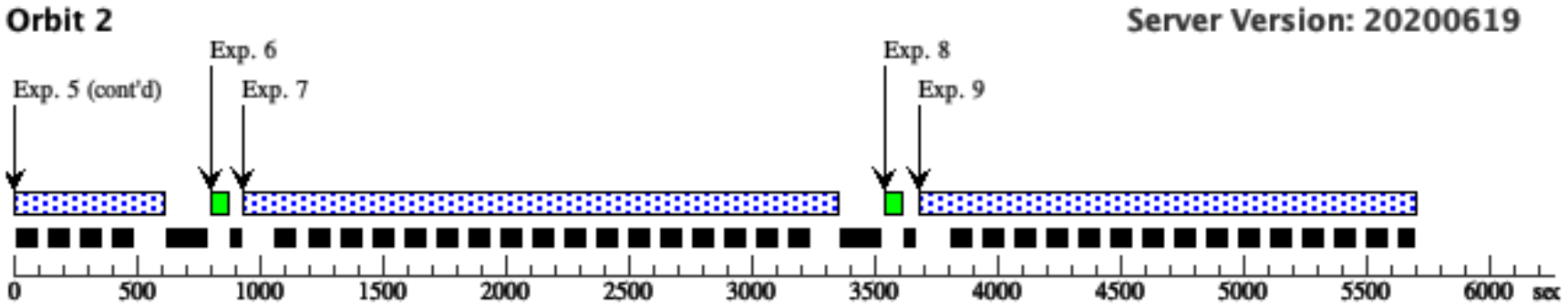
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

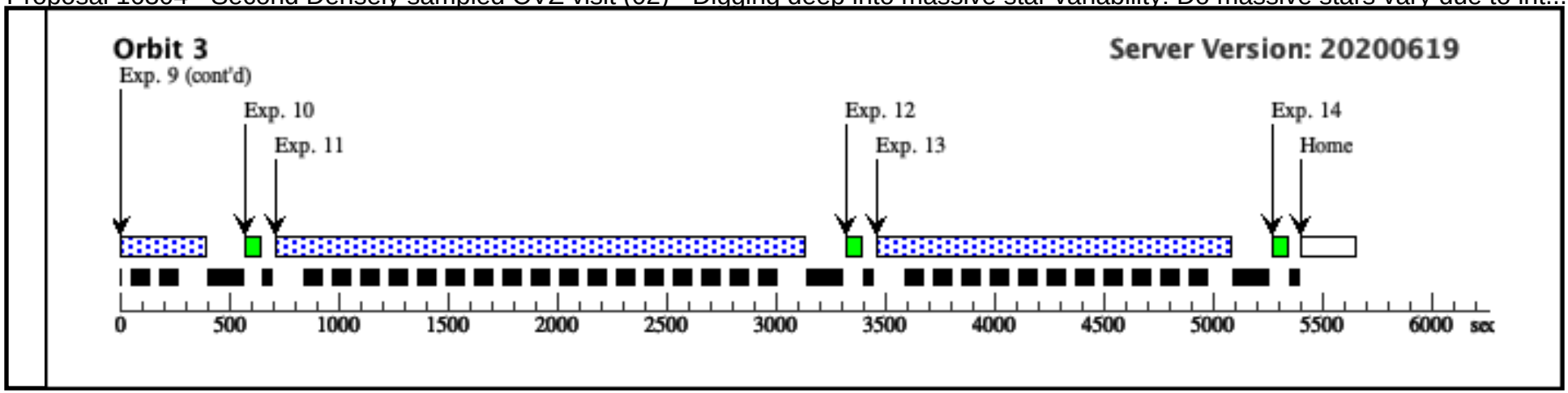
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	*[1]*
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[1]*
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[1]*
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[1]*
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[1]*
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[2]*
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[2]*
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
11	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[3]*
12	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
13	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			1600 Secs (1600 Secs) *[==>]*	*[3]*
14	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*

Orbit Structure






Orbit 3
Server Version: 20200619
Exp. 9 (cont'd)
Exp. 10
Exp. 11
Exp. 12
Exp. 13
Exp. 14
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16304, Second Densely sampled CVZ (part 2) visit (03), scheduling Thu Dec 24 20:01:24 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: CVZ; AFTER 02 BY 2.9 Orbits TO 3.1 Orbits

Diagnostics

(Second Densely sampled CVZ (part 2) visit (03)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
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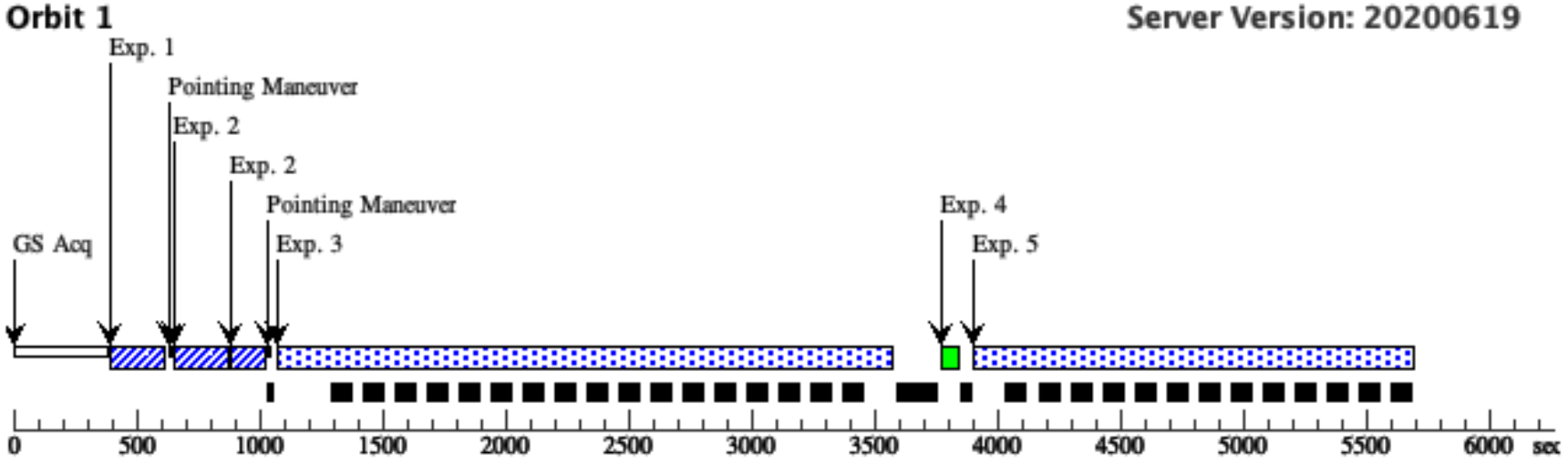
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

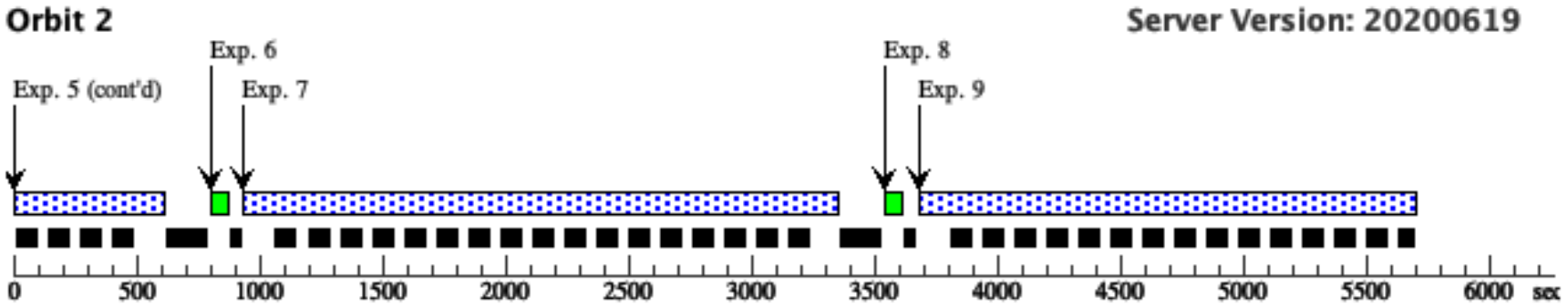
Exposures

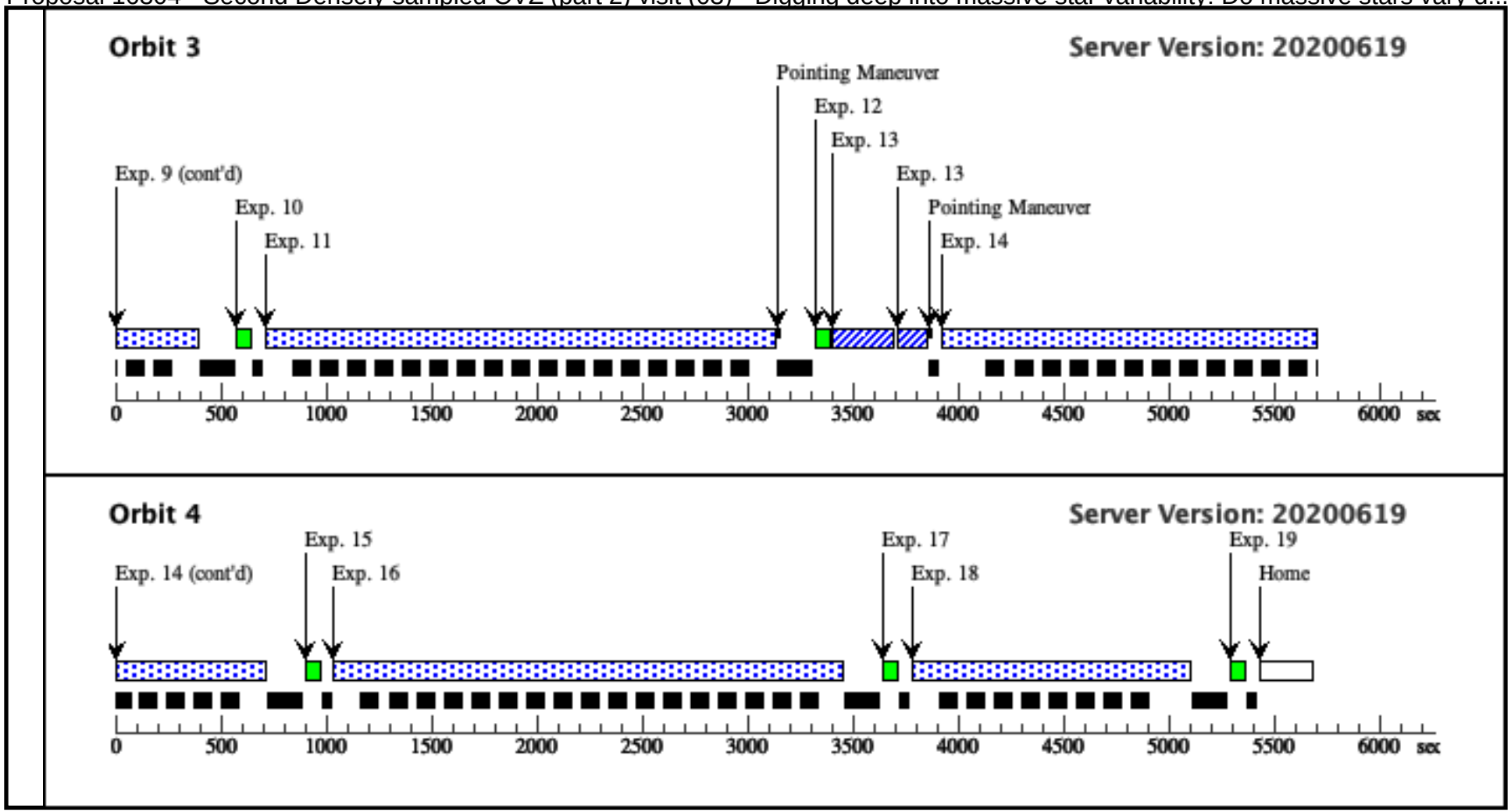
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	*[1]*
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[1]*
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[1]*
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[1]*
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[1]*
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[2]*
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[2]*
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
11	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[3]*
12	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
13	Re-Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[3]*
14	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[3]*
15	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[4]*
16	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[4]*
17	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[4]*
18	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			1300 Secs (1300 Secs) *[==>]*	*[4]*

	19	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	*[==>]*	***[4]***

Orbit Structure



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Pointing Maneuver
Exp. 12
Exp. 13
Exp. 13
Pointing Maneuver
Exp. 14
Exp. 9 (cont'd)
Exp. 10
Exp. 11
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec
Orbit 4
Server Version: 20200619
Exp. 15
Exp. 17
Exp. 19
Exp. 14 (cont'd)
Exp. 16
Exp. 18
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16304, Third Densely sampled visit (04), scheduling Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: CVZ; BETWEEN 15-JAN-2021:18:00:00 AND 16-JAN-2021:06:00:00

Diagnostics

(Third Densely sampled visit (04)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

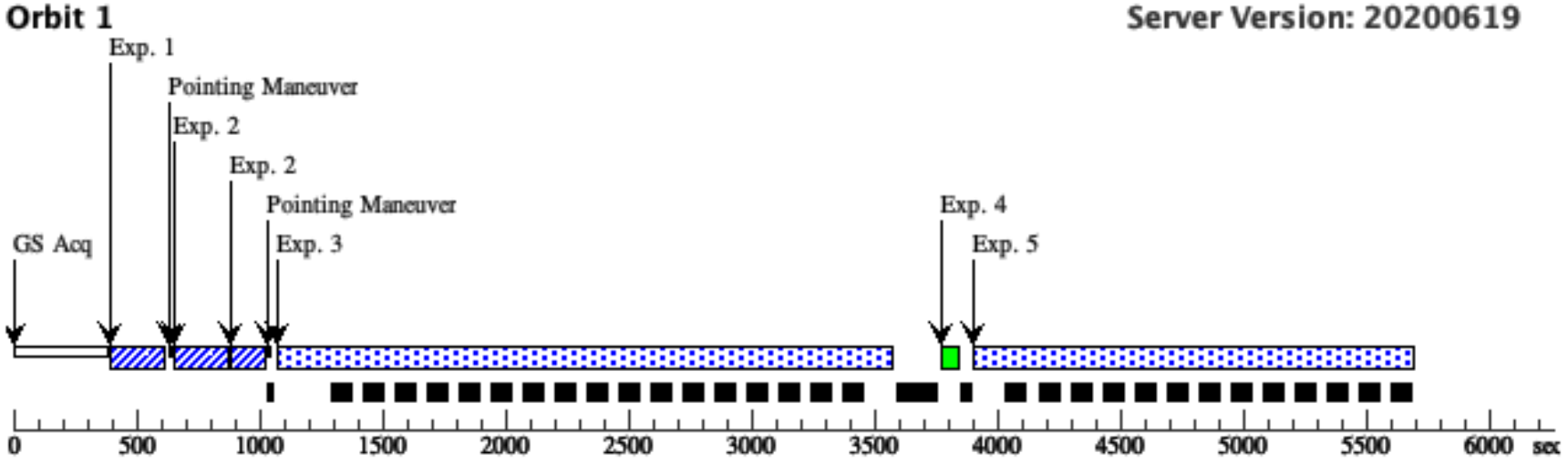
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

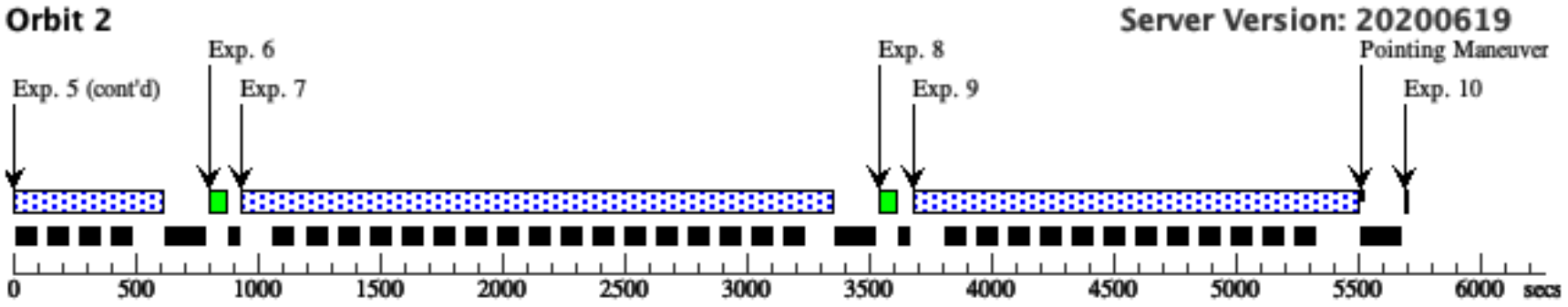
Exposures

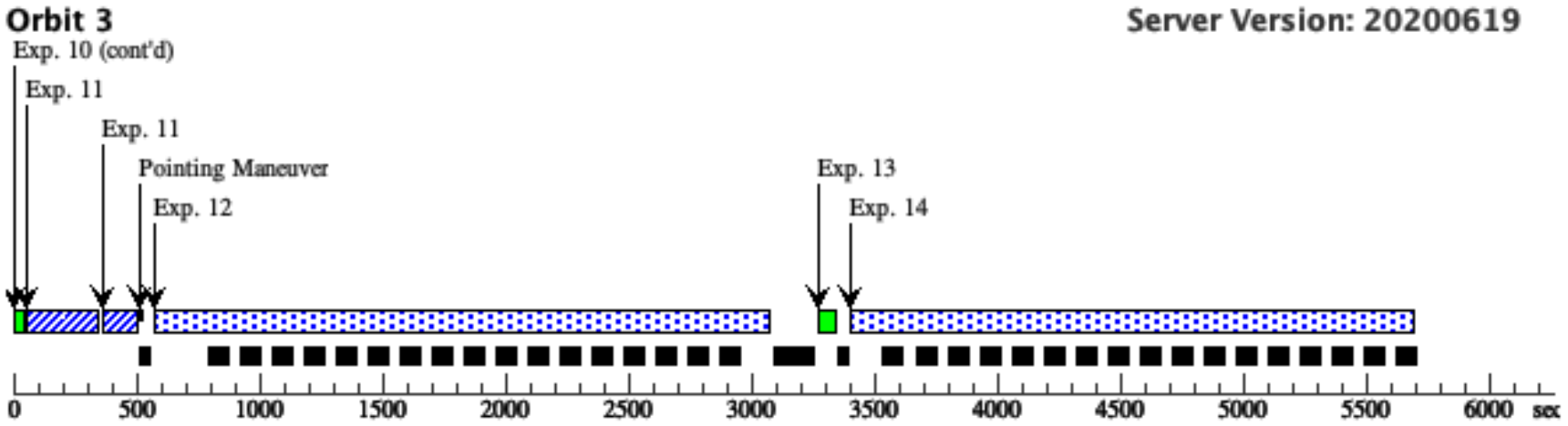
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	*[1]*
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[1]*
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130			2400 Secs (2400 Secs) *[==>]*	*[1]*
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[1]*
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[1]*
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130			2400 Secs (2400 Secs) *[==>]*	*[2]*
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130			1800 Secs (1800 Secs) *[==>]*	*[2]*
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
11	Re-Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[3]*
12	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=130			2400 Secs (2400 Secs) *[==>]*	*[3]*
13	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
14	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[3]*
15	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[4]*
16	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[4]*
17	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[4]*
18	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	*[4]*

	19	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		*[==>]*	***[5]***
	20	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO	2400 Secs (2400 Secs) *[==>]*	 ***[5]***
	21	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		*[==>]*	***[5]***
	22	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO	2100 Secs (2100 Secs) *[==>]*	 ***[5]***
	23	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		*[==>]*	***[5]***

Orbit Structure



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Exp. 11
Exp. 11
Pointing Maneuver
Exp. 12
Exp. 13
Exp. 14
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3000
3500
4000
4500
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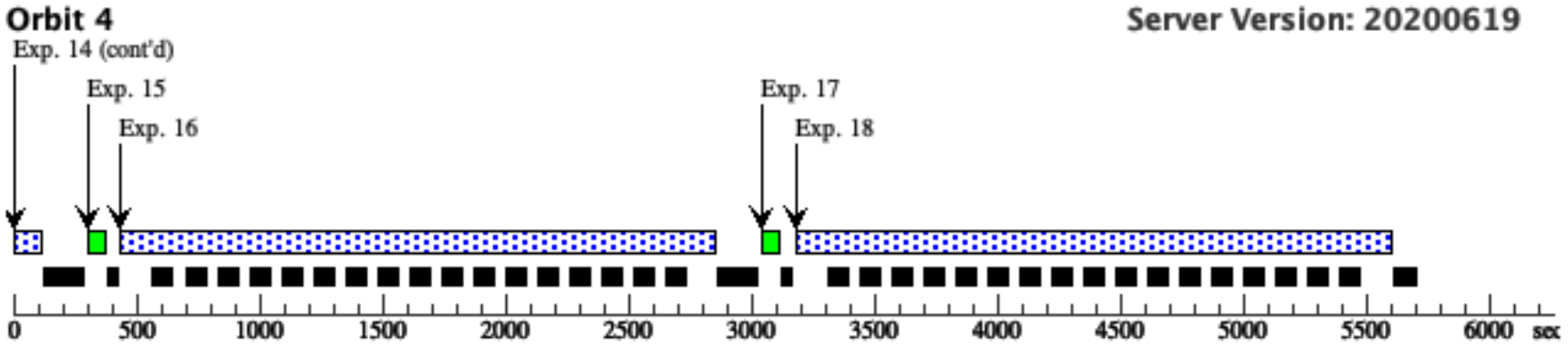
5500
6000
sec


Orbit 4
Server Version: 20200619
Exp. 14 (cont'd)
Exp. 15
Exp. 16
Exp. 17
Exp. 18
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3500
4000
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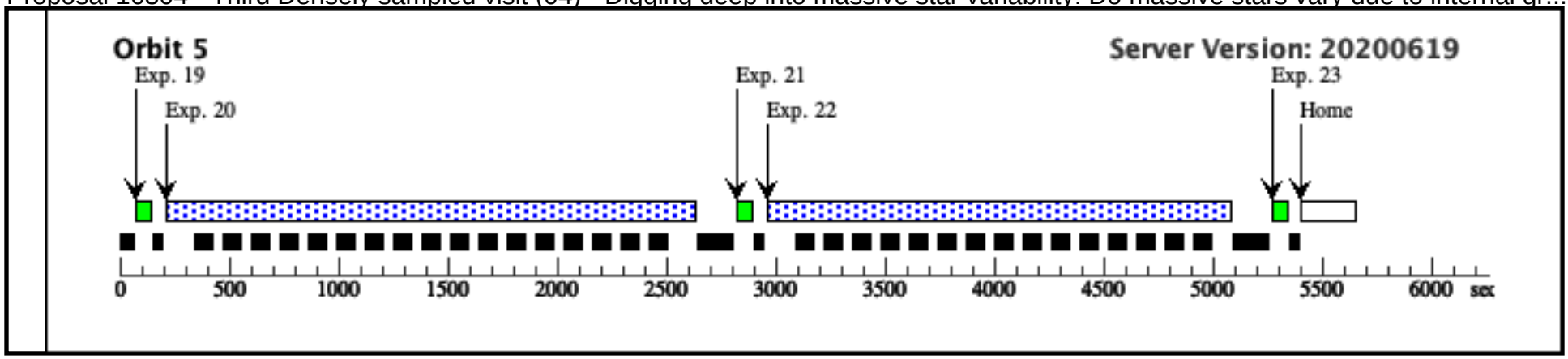
5000
5500
6000
sec


Orbit 5
Server Version: 20200619
Exp. 19
Exp. 20
Exp. 21
Exp. 22
Exp. 23
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16304, First sparsely sampled visit (05), scheduling Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 16-JAN-2021:18:00:00 AND 17-JAN-2021:05:00:00

Diagnostics

(First sparsely sampled visit (05)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

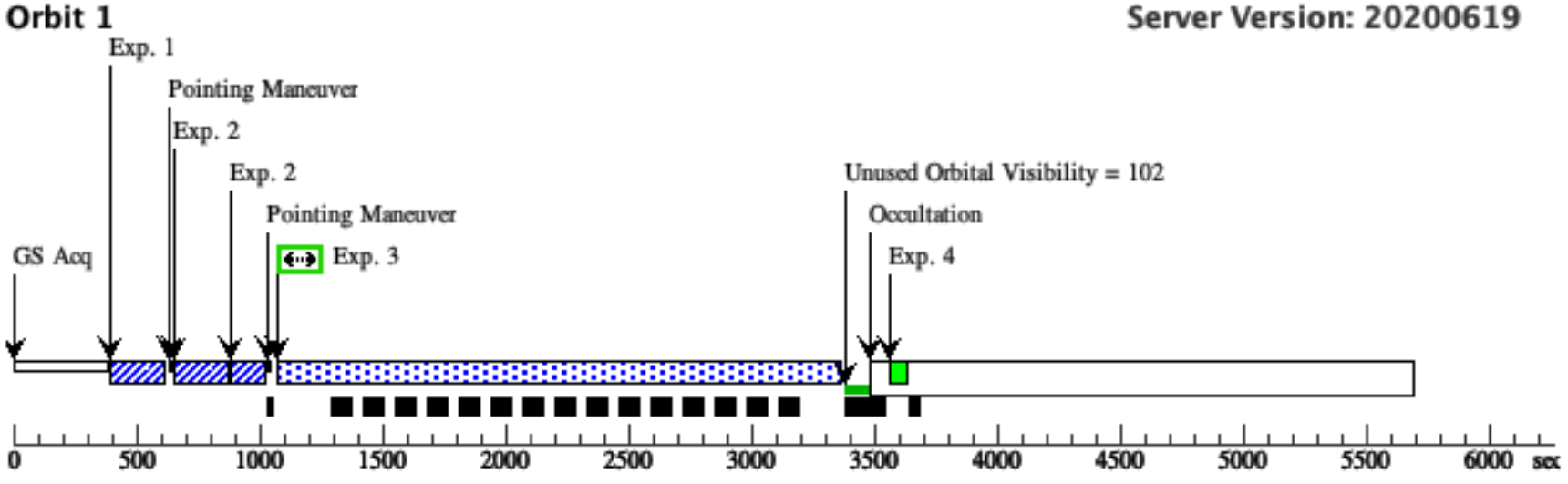
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

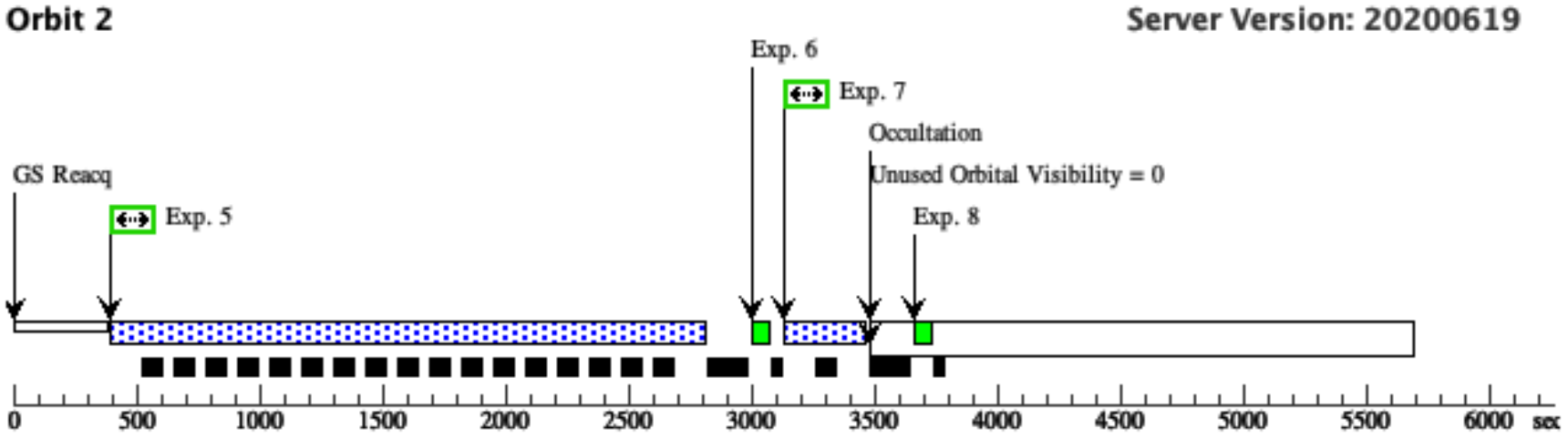
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

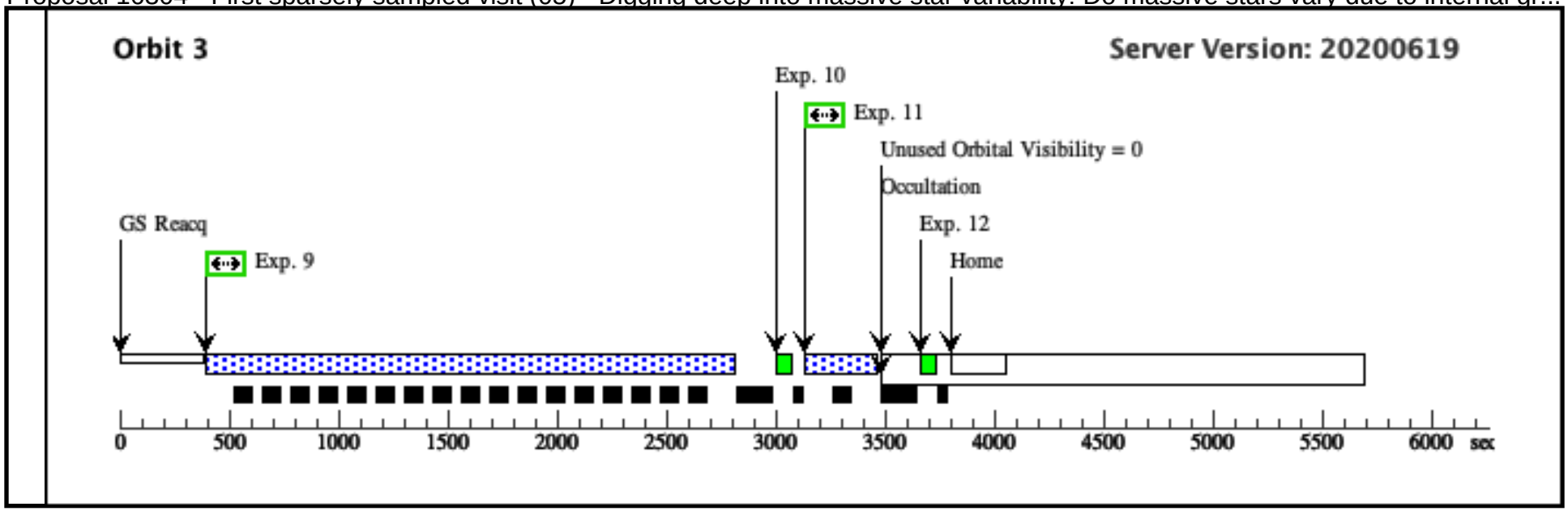
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=1300; WAVECAL=NO			2092 Secs (2192 Secs) *[==>2192.0 Secs]*	***[1]***
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=1300; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	***[2]***
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=1300; WAVECAL=NO			318 Secs (318 Secs) *[==>]*	***[2]***
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=1300; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	***[3]***
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[3]***
11	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=1300; WAVECAL=NO			318 Secs (318 Secs) *[==>]*	***[3]***
12	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[3]***

Orbit Structure



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Exp. 11
Unused Orbital Visibility = 0
Occultation
Exp. 12
Home
GS Reacq
Exp. 9
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16304, Second sparsely sampled visit (06), scheduling Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 17-JAN-2021:17:00:00 AND 18-JAN-2021:05:00:00

Diagnostics

(Second sparsely sampled visit (06)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

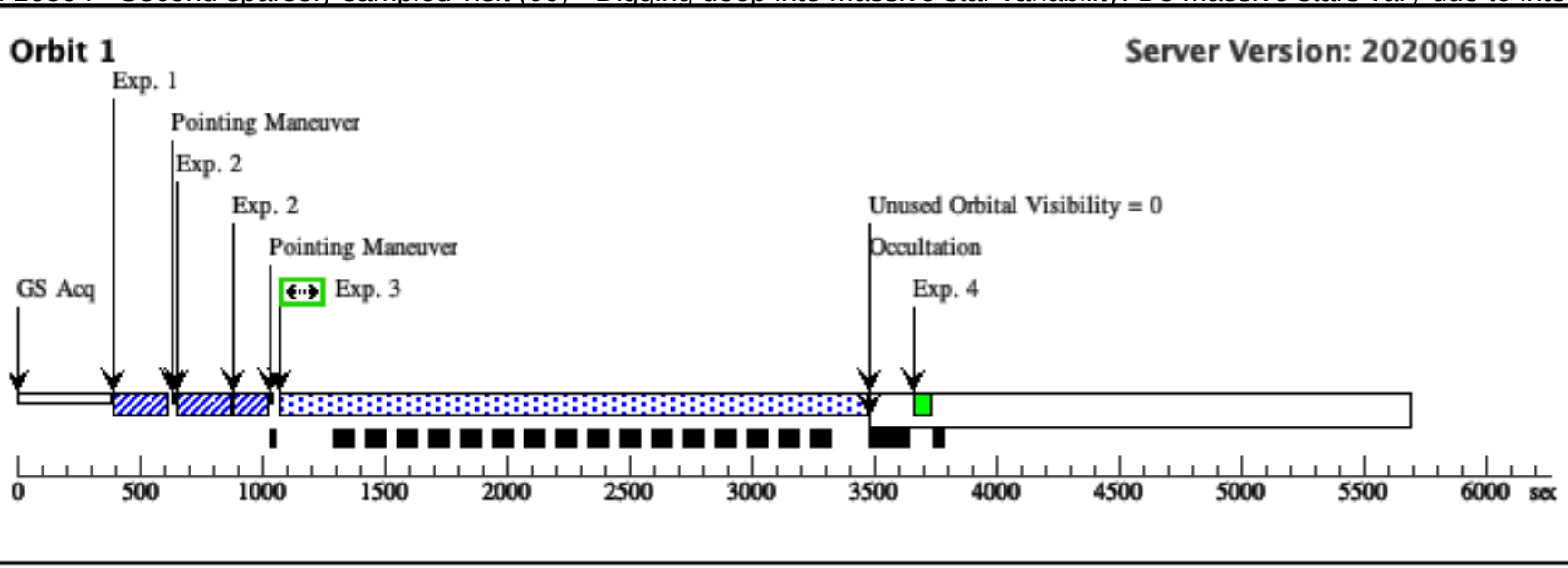
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

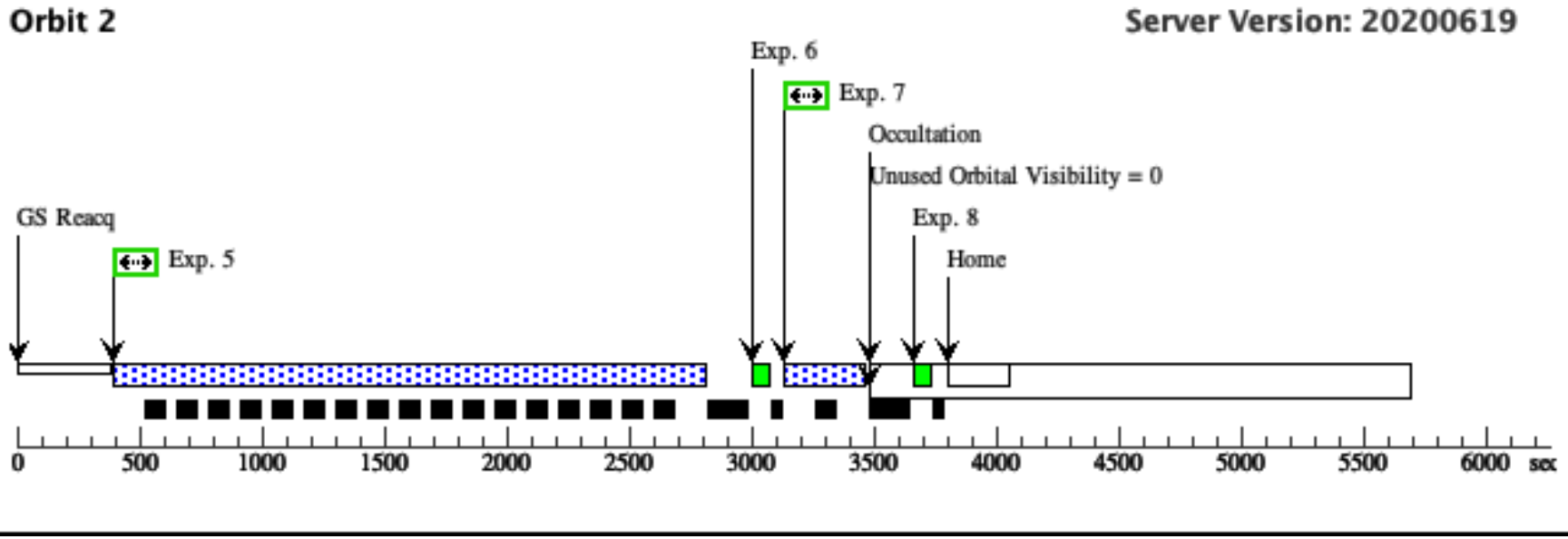
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD0002 94F2S1HD000309F1		.1 Secs (0.1 Secs)	
								[==>]	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs)	
								[==>]	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2092 Secs (2294 Secs)	
								[==>2294.0 Secs]	***[1]***
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs)	
								[==>]	***[2]***
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			318 Secs (318 Secs)	
								[==>]	***[2]***
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16304, Third sparsely sampled visit (07), scheduling Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 18-JAN-2021:16:00:00 AND 19-JAN-2021:05:00:00

Diagnostics

(Third sparsely sampled visit (07)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

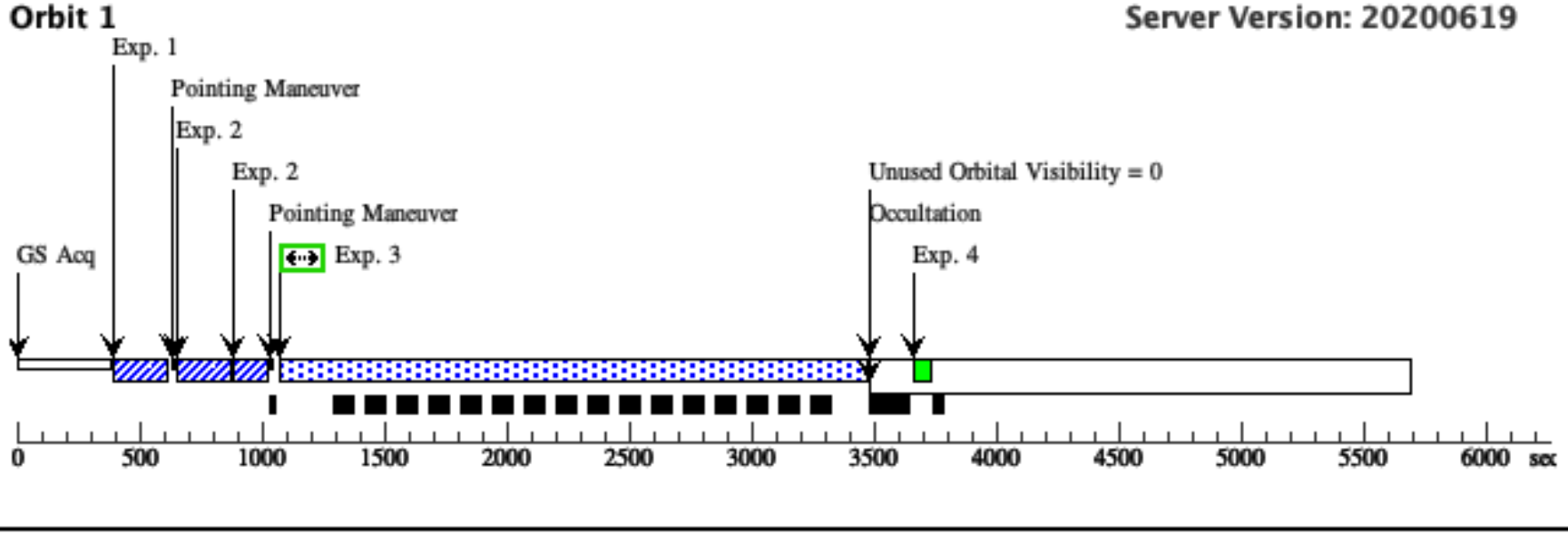
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

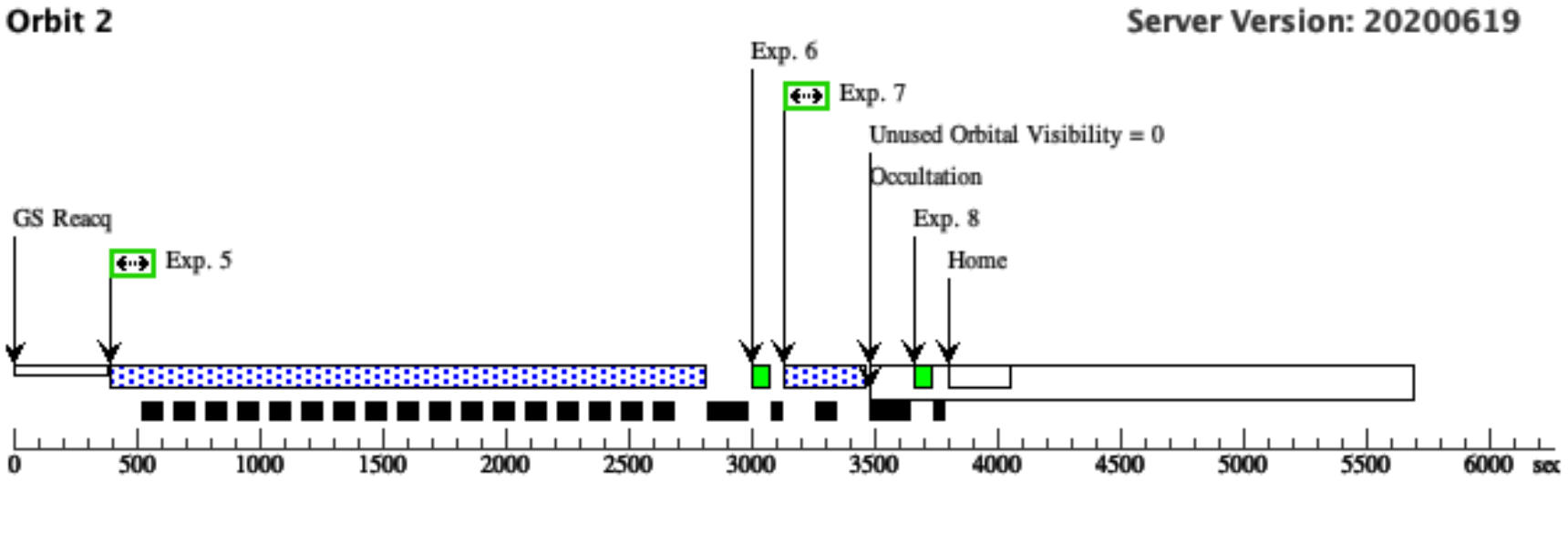
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	 ***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	 ***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2092 Secs (2294 Secs) *[==>2294.0 Secs]*	 ***[1]***
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2400 Secs (2400 Secs) *[==>]*	 ***[2]***
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			318 Secs (318 Secs) *[==>]*	 ***[2]***
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16304, Fourth sparsely sampled visit (08), scheduling Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 20-JAN-2021:15:00:00 AND 21-JAN-2021:05:00:00; VISIBILITY INTERVAL 56.5 M

Diagnostics

(Fourth sparsely sampled visit (08)) Warning (Orbit Planner): STIS TIME-TAG EXPOSURE GENERATES HEAVY DATA VOLUME

Fixed Targets

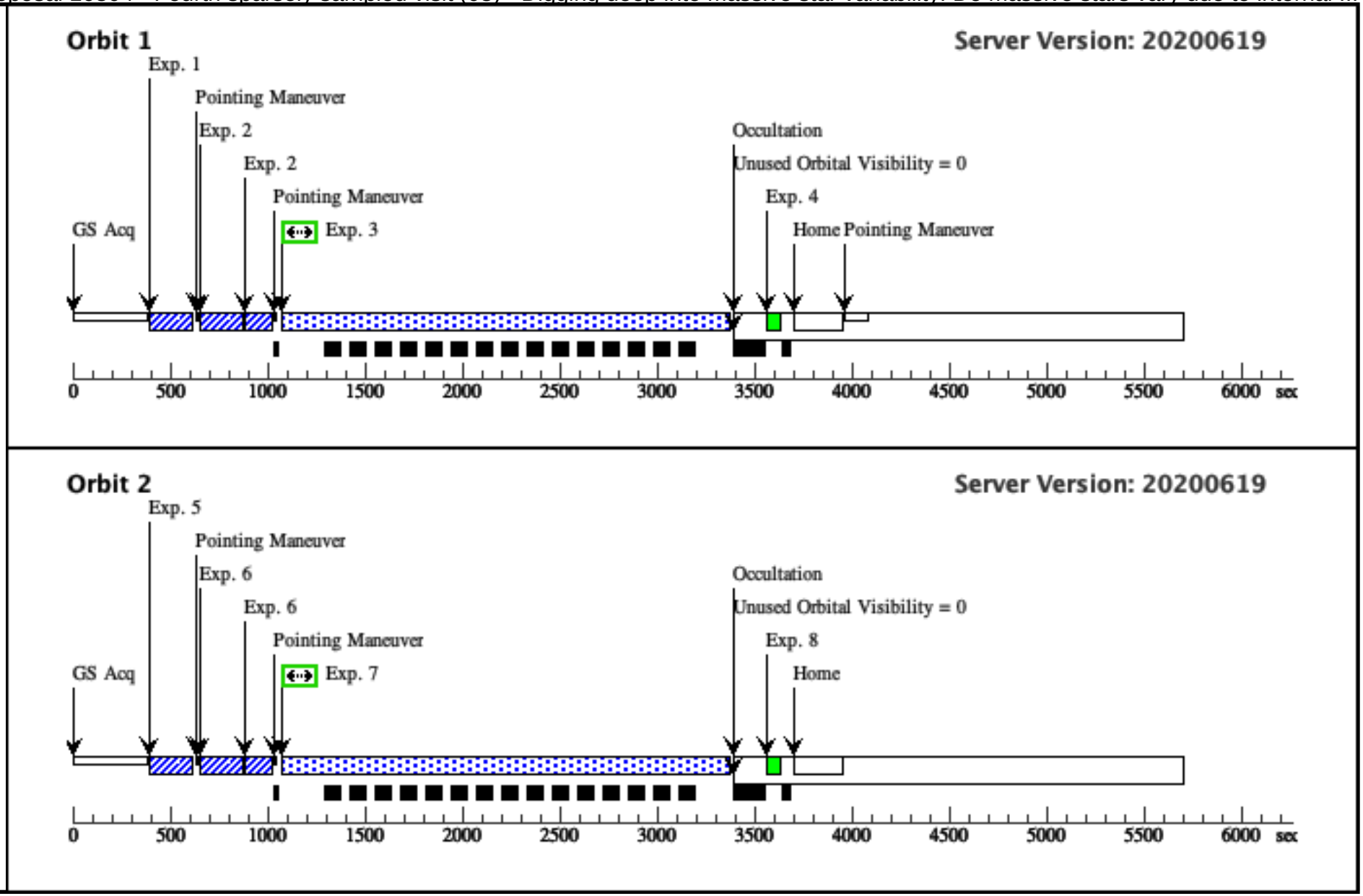
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT 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	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs)	
								[==>]	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs)	
								[==>]	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2092 Secs (2198 Secs)	
								[==>2198.0 Secs]	***[1]***
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
5	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	NEW OBSET FULL ACQ; GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs)	
								[==>]	***[2]***
6	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs)	
								[==>]	***[2]***
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	BUFFER-TIME=130; WAVECAL=NO			2092 Secs (2198 Secs)	
								[==>2198.0 Secs]	***[2]***
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***

Orbit Structure



Visit

Proposal 16304, First Densely sampled visit - accum (11) Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 12-JAN-2021:20:00:00 AND 13-JAN-2021:05:00:00; ON HOLD ; VISIBILITY INTERVAL 89 M

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

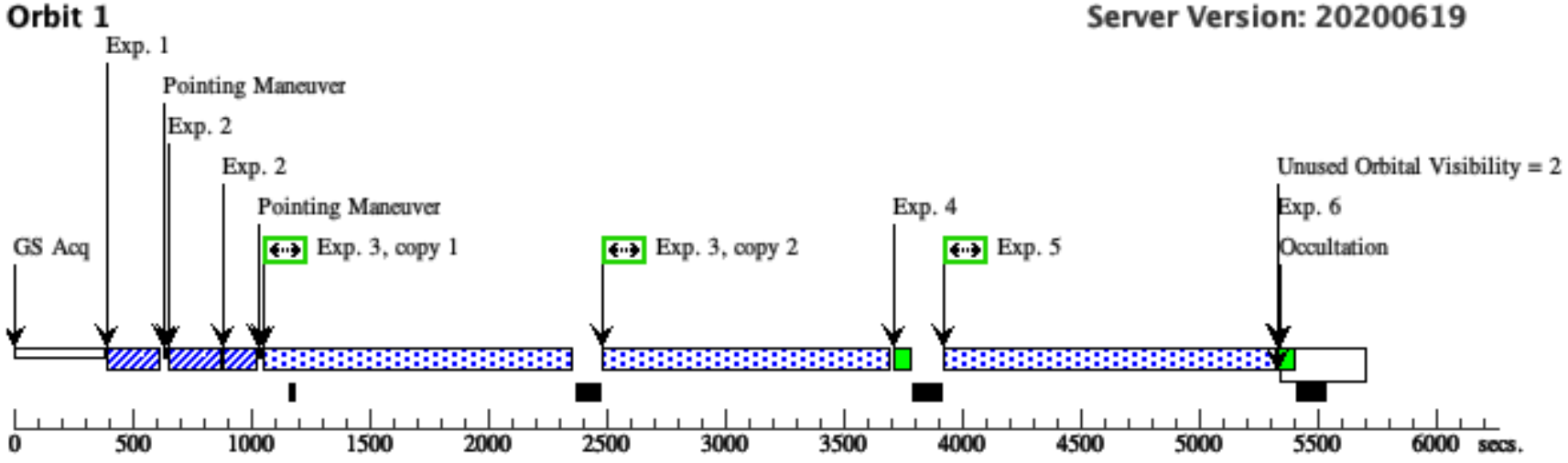
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

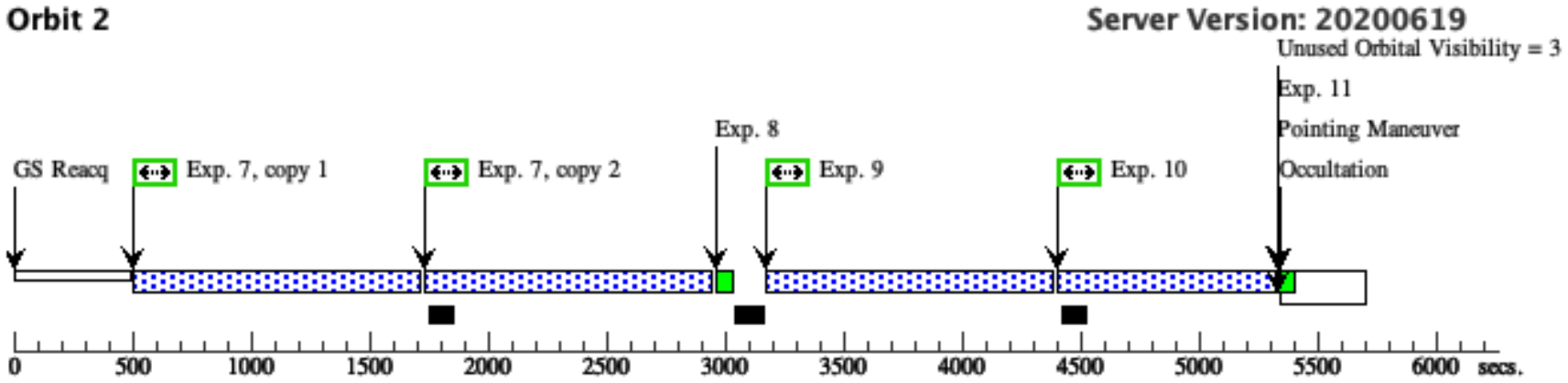
Exposures

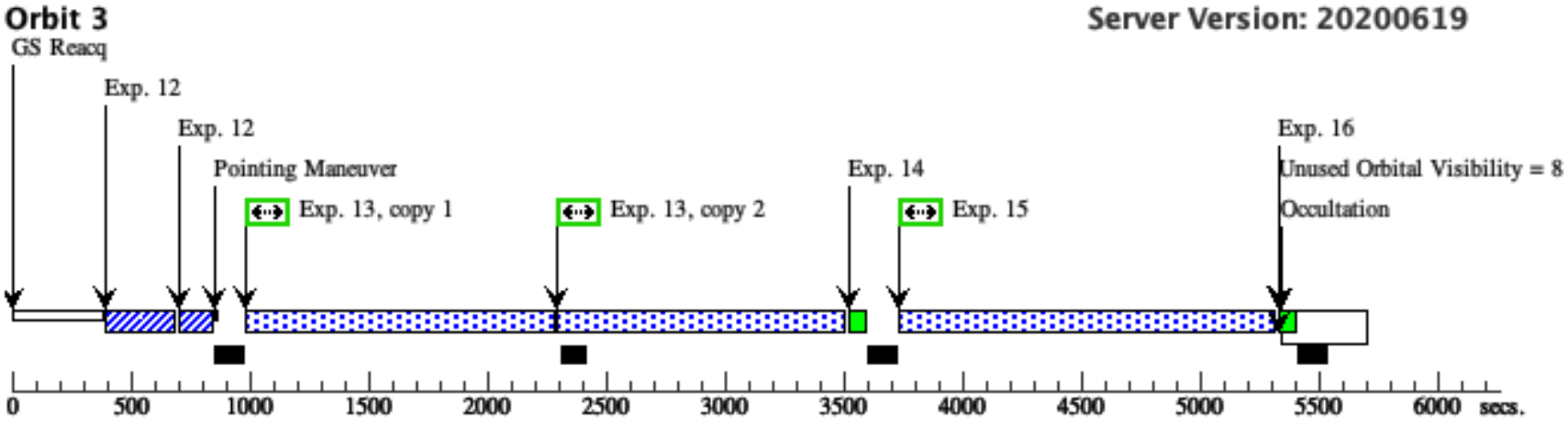
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1	Sequence 1-6 Non-Int in First Densely sampled visit - accum (11)	.1 Secs (0.1 Secs) *[==>]*	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR			Sequence 1-6 Non-Int in First Densely sampled visit - accum (11)	.3 Secs (0.3 Secs) *[==>]*	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO		Sequence 1-6 Non-Int in First Densely sampled visit - accum (11)	1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 1-6 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[1]***
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO		Sequence 1-6 Non-Int in First Densely sampled visit - accum (11)	1385 Secs (1385 Secs) *[==>]*	***[1]***
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 1-6 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[1]***
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO		Sequence 7-11 Non-Int in First Densely sampled visit - accum (11)	1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 7-11 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[2]***
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO		Sequence 7-11 Non-Int in First Densely sampled visit - accum (11)	1200 Secs (1200 Secs) *[==>]*	***[2]***
10	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO		Sequence 7-11 Non-Int in First Densely sampled visit - accum (11)	908 Secs (908 Secs) *[==>]*	***[2]***
11	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 7-11 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[2]***
12	Re-Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR			Sequence 12-16 Non-Int in First Densely sampled visit - accum (11)	.3 Secs (0.3 Secs) *[==>]*	***[3]***
13	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO		Sequence 12-16 Non-Int in First Densely sampled visit - accum (11)	1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[3]***
14	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 12-16 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[3]***

	15	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	Sequence 12-16 Non-Int in First Densely sampled visit - accum (11)	1565 Secs (1565 Secs) *[==>]*	***[3]***
	16	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 12-16 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[3]***
	17	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	Sequence 17-21 Non-Int in First Densely sampled visit - accum (11)	1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[4]***
	18	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 17-21 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[4]***
	19	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	Sequence 17-21 Non-Int in First Densely sampled visit - accum (11)	1200 Secs (1200 Secs) *[==>]*	***[4]***
	20	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	Sequence 17-21 Non-Int in First Densely sampled visit - accum (11)	908 Secs (908 Secs) *[==>]*	***[4]***
	21	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 17-21 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[4]***
	22	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	Sequence 22-26 Non-Int in First Densely sampled visit - accum (11)	1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[5]***
	23	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 22-26 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[5]***
	24	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	Sequence 22-26 Non-Int in First Densely sampled visit - accum (11)	1200 Secs (1200 Secs) *[==>]*	***[5]***
	25	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	Sequence 22-26 Non-Int in First Densely sampled visit - accum (11)	658 Secs (658 Secs) *[==>]*	***[5]***
	26	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		Sequence 22-26 Non-Int in First Densely sampled visit - accum (11)	*[==>]*	***[5]***

Orbit Structure



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Pointing Maneuver
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Exp. 14
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Exp. 16
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5500
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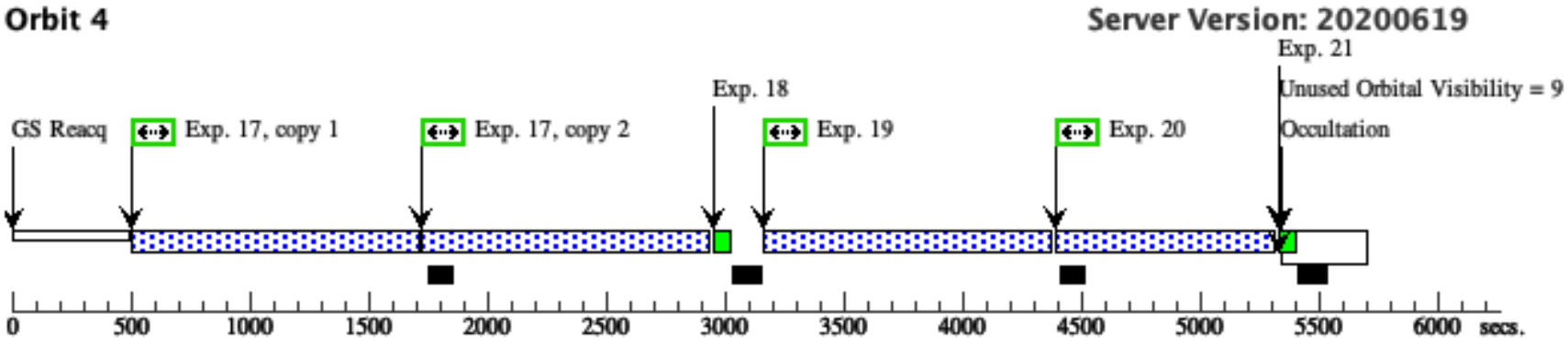
secs.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GS Reacq
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Exp. 19
Exp. 20
Exp. 21
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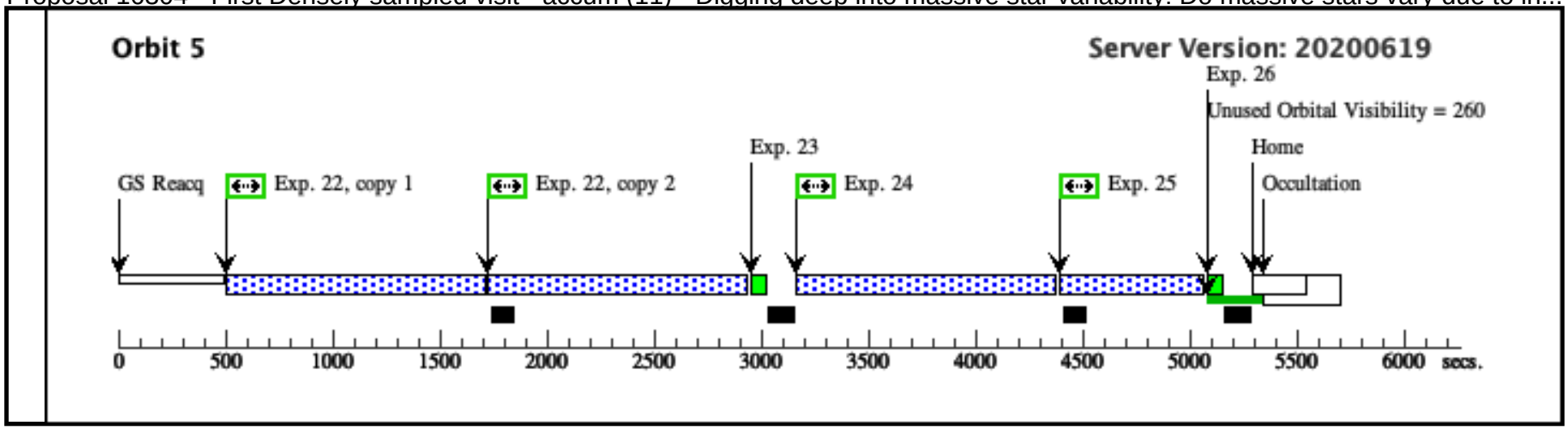
secs.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Exp. 22, copy 2
Exp. 24
Exp. 25
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
secs.

Visit

Proposal 16304, Second Densely sampled CVZ visit - accum (12) Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: CVZ; BETWEEN 14-JAN-2021:18:00:00 AND 15-JAN-2021:04:00:00; ON HOLD

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

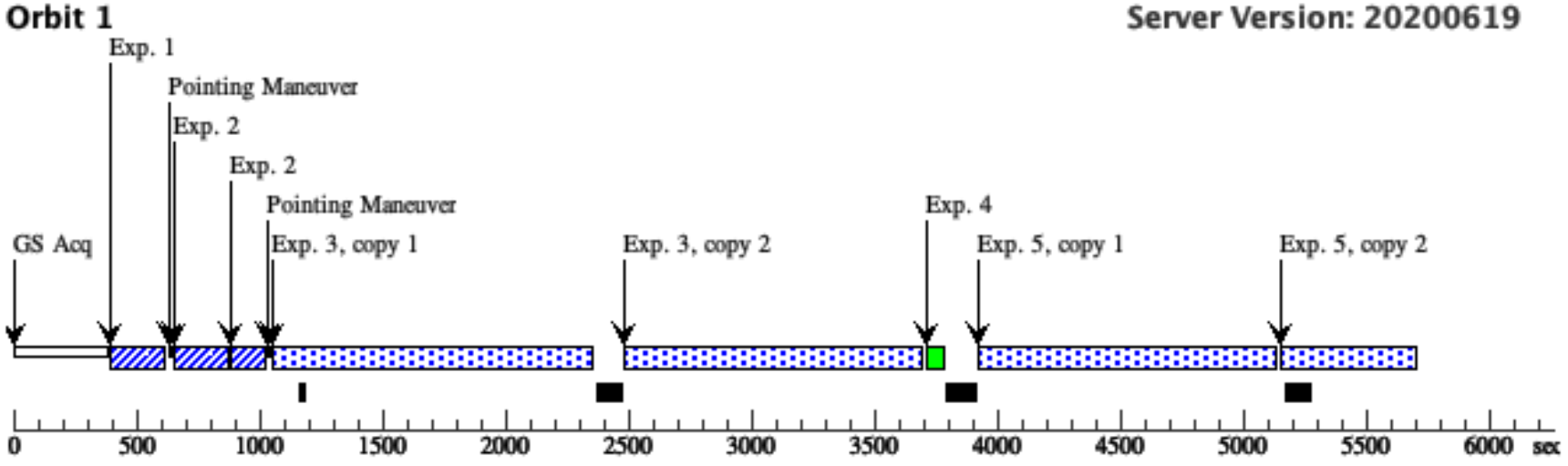
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

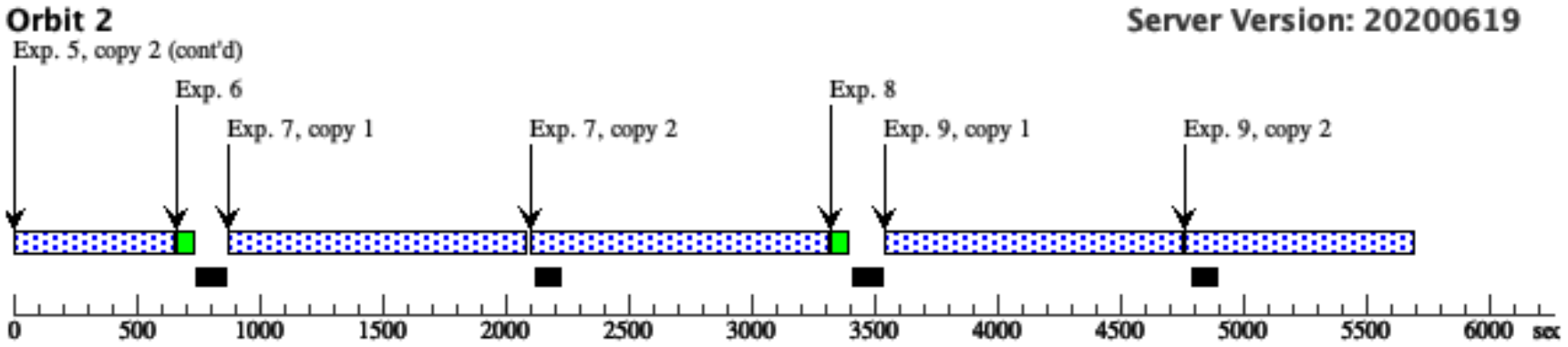
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

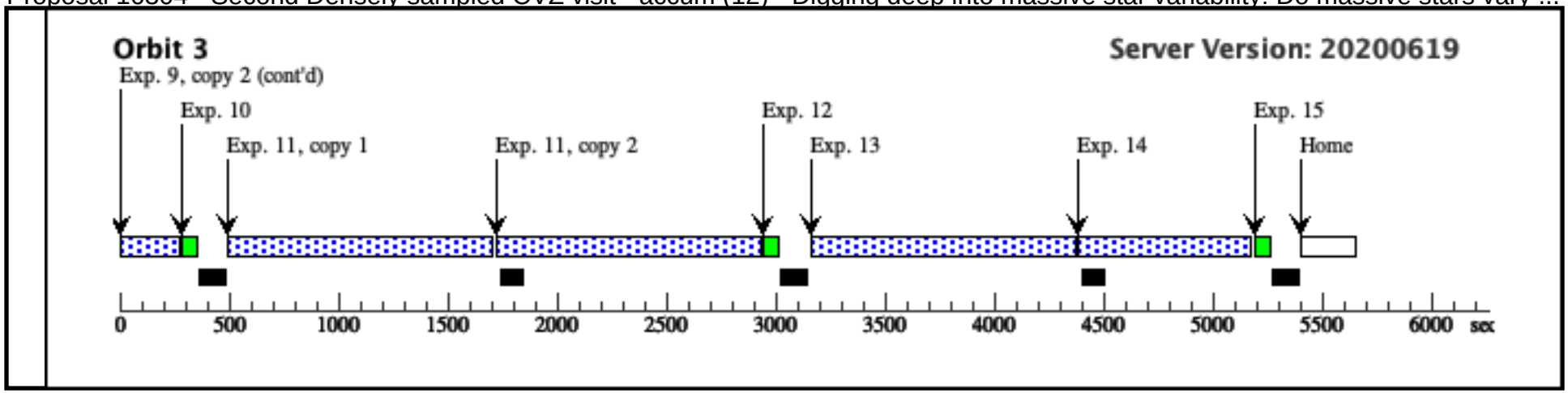
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD0002 94F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	*[1]*
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[1]*
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[1]*
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
11	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[3]*
12	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
13	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs (1200 Secs) *[==>]*	*[3]*
14	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			780 Secs (780 Secs) *[==>]*	*[3]*
15	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*

Orbit Structure



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Exp. 11, copy 1
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Exp. 12
Exp. 13
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2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16304, Second Densely sampled CVZ (part 2) visit - accum (13) Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: CVZ; AFTER 12 BY 2.9 Orbits TO 3.1 Orbits; ON HOLD

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

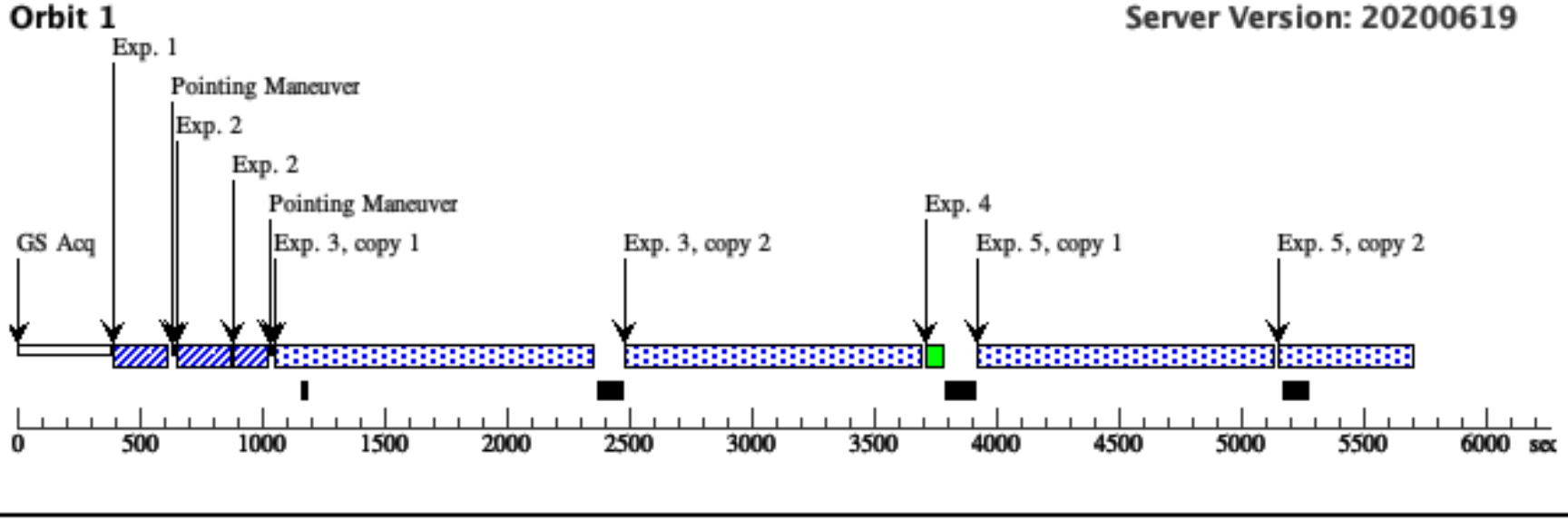
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

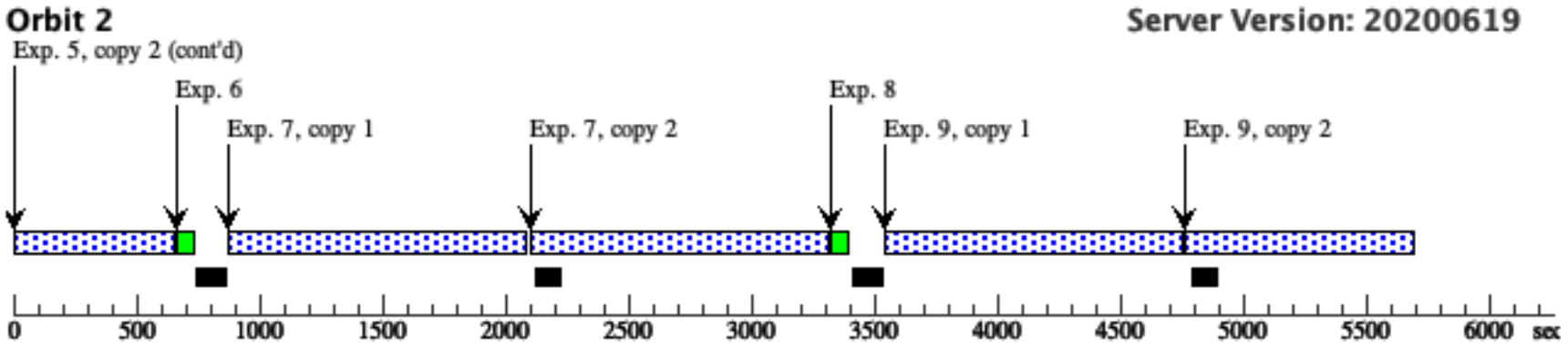
Exposures

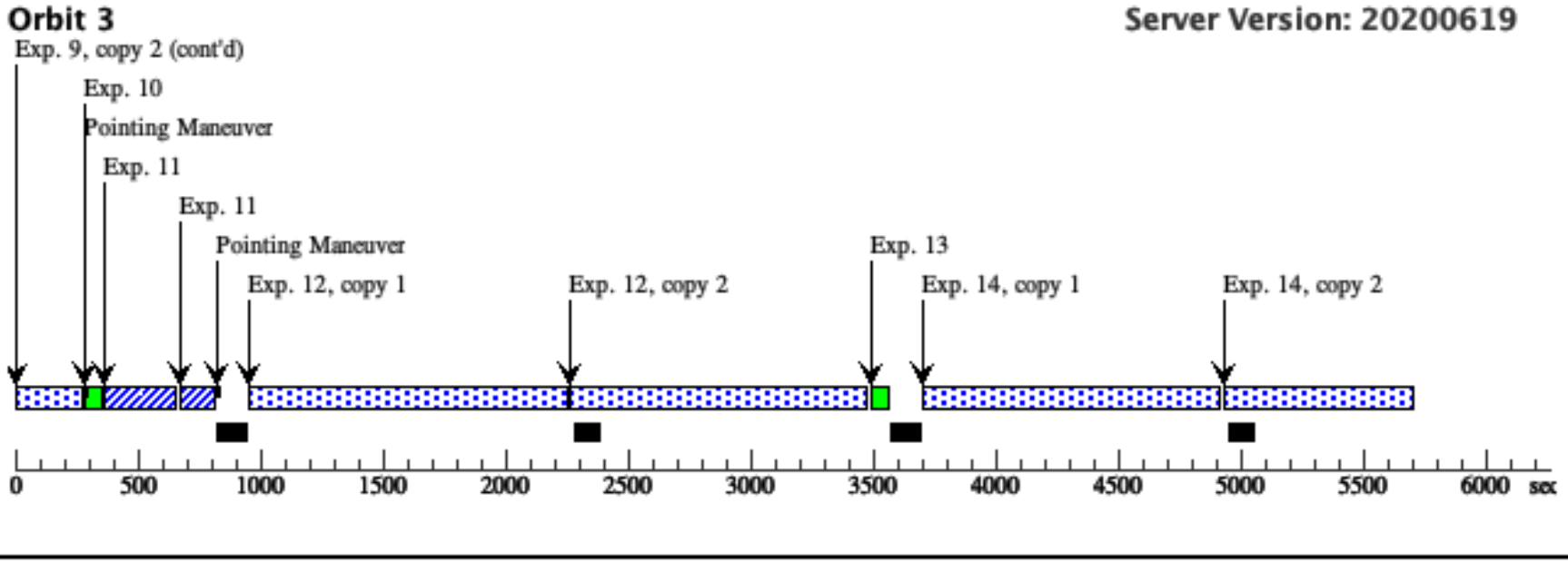
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD0002 94F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	*[1]*
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[1]*
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[1]*
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[2]*
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[2]*
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
11	Re-Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	*[3]*
12	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[3]*
13	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[3]*
14	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[3]*
15	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[4]*
16	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	*[4]*
17	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	*[4]*

	18	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	1200 Secs (1200 Secs) *[==>]*	 ***[4]***
	19	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	638 Secs (638 Secs) *[==>]*	 ***[4]***
	20	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		*[==>]*	***[4]***

Orbit Structure



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Pointing Maneuver
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Exp. 12, copy 2
Exp. 13
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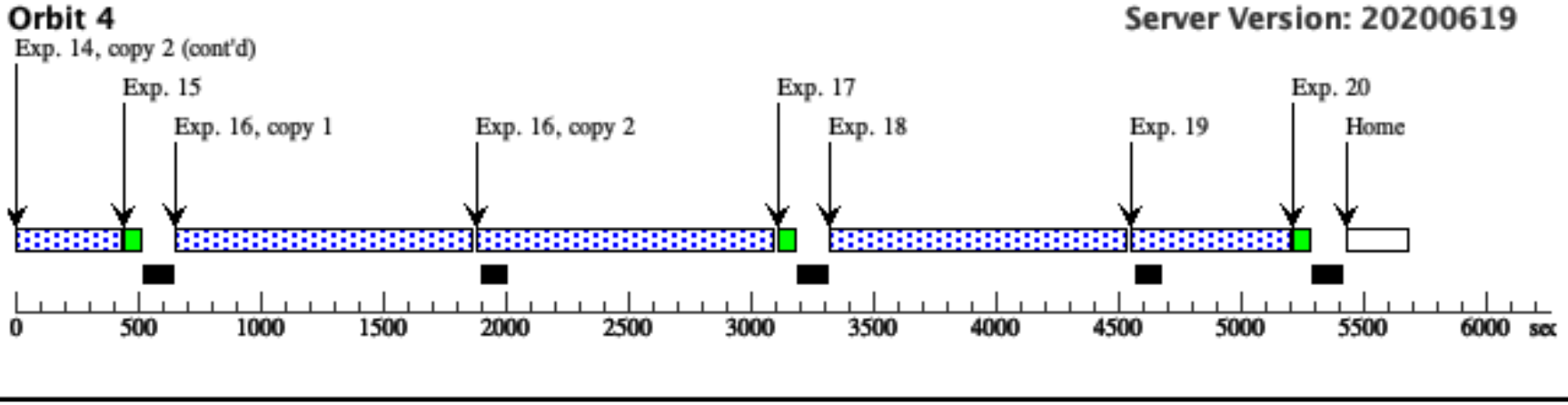
sec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Exp. 16, copy 2
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Exp. 18
Exp. 19
Exp. 20
Home
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1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16304, Third Densely sampled visit - accum (14) Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: CVZ; BETWEEN 15-JAN-2021:18:00:00 AND 16-JAN-2021:06:00:00; ON HOLD

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

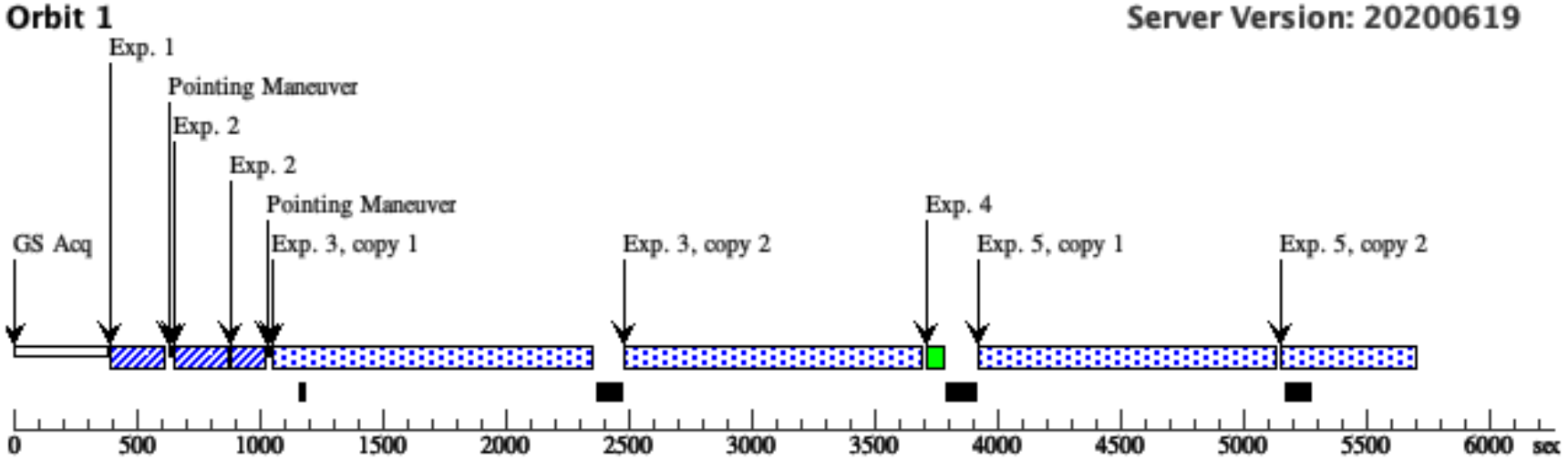
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

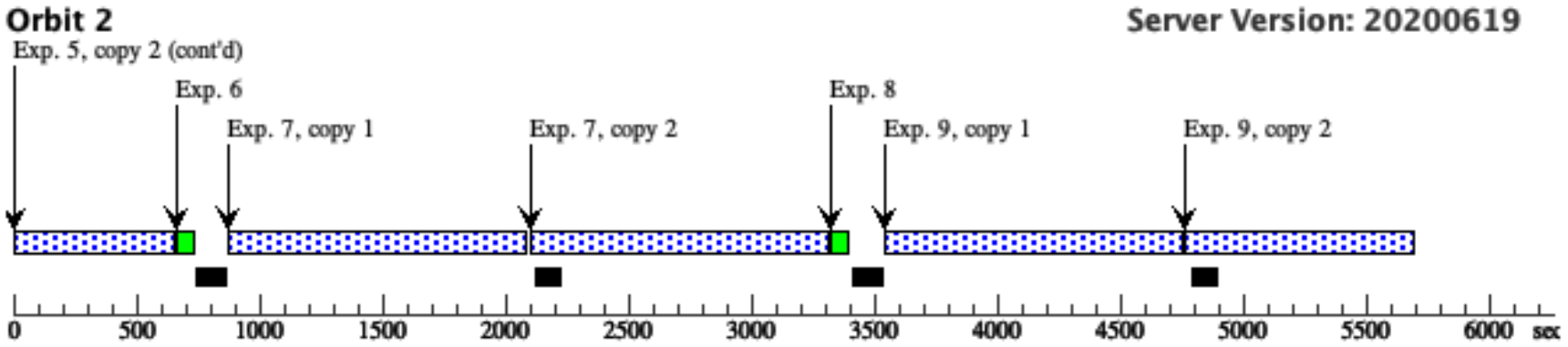
Exposures

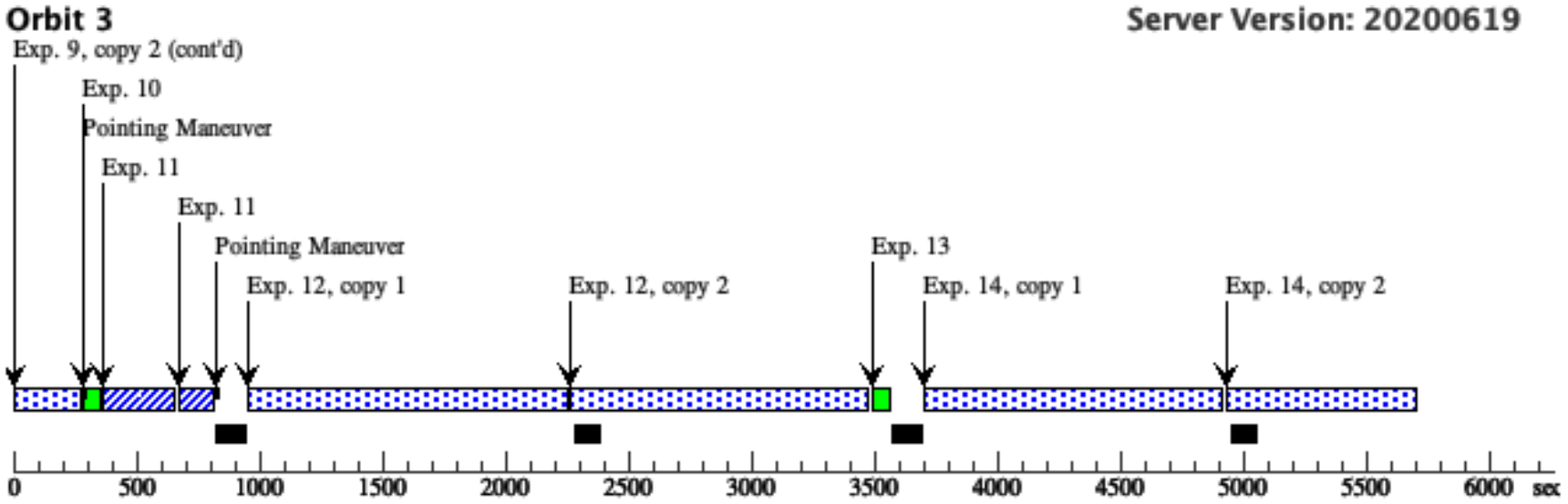
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
4	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
5	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***
6	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
7	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
8	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[3]***
11	Re-Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	***[3]***
12	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[3]***
13	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[3]***
14	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[3]***
15	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[4]***
16	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[4]***
17	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[4]***

	18	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[4]***
	19	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		*[==>]*	***[5]***
	20	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[5]***
	21	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		*[==>]*	***[5]***
	22	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	1200 Secs (1200 Secs) *[==>]*	***[5]***
	23	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO	996 Secs (996 Secs) *[==>]*	***[5]***
	24	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A		*[==>]*	***[5]***

Orbit Structure



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Pointing Maneuver
Exp. 11
Exp. 11
Pointing Maneuver
Exp. 12, copy 1
Exp. 12, copy 2
Exp. 13
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Exp. 14, copy 2
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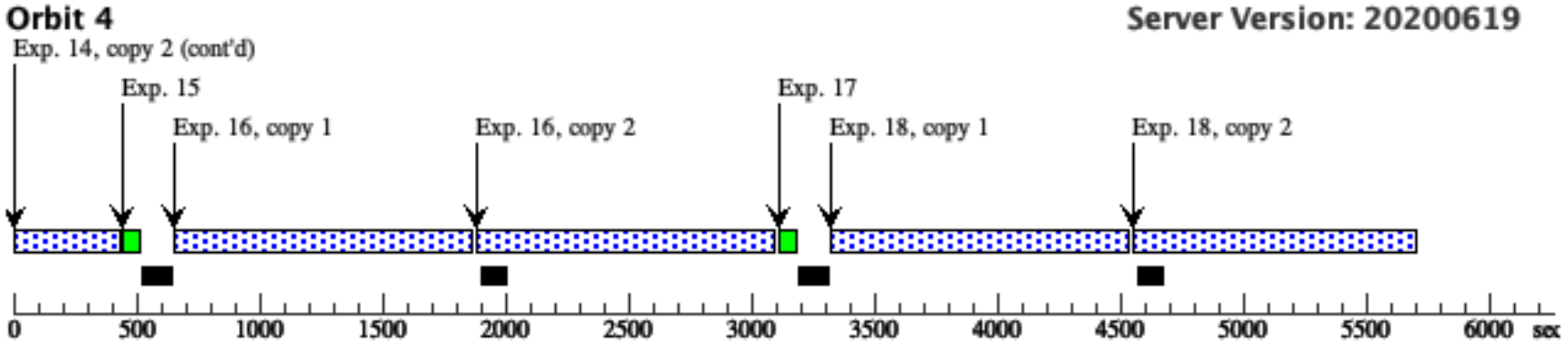
Orbit 4
Server Version: 20200619
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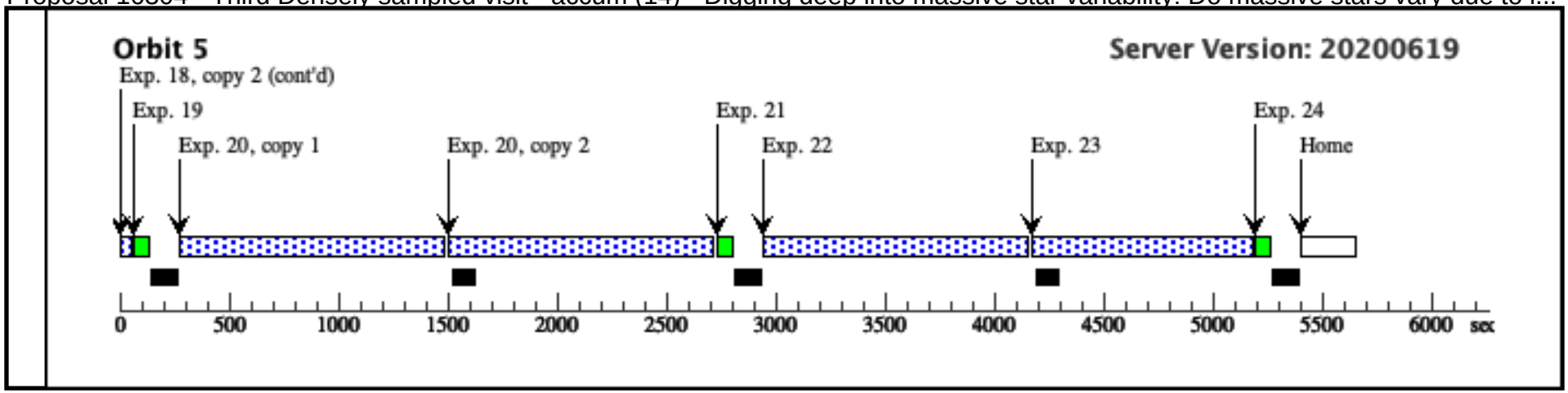
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Exp. 23
Exp. 24
Home
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3500
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sec

Visit

Proposal 16304, First sparsely sampled visit - accum (15) Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 16-JAN-2021:18:00:00 AND 17-JAN-2021:05:00:00; ON HOLD

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

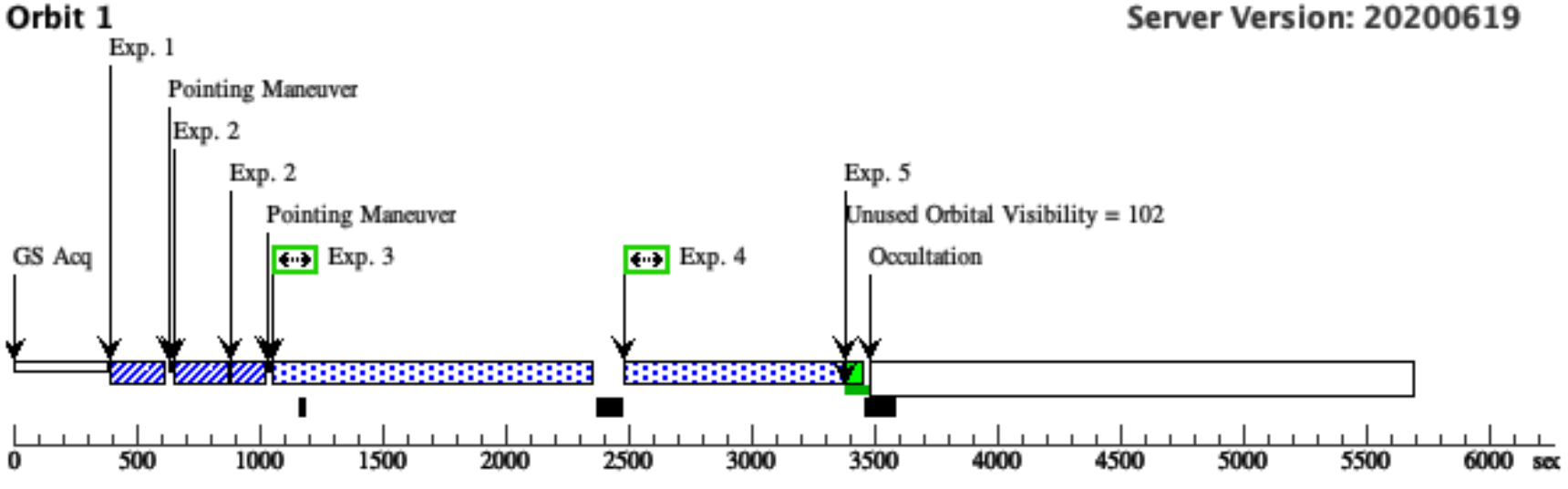
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

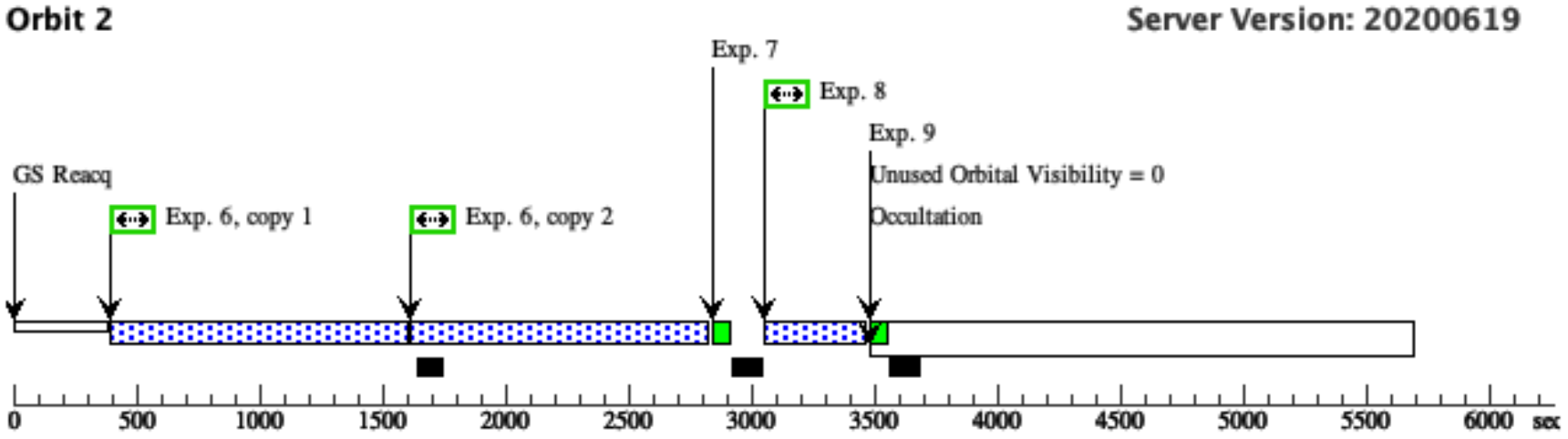
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

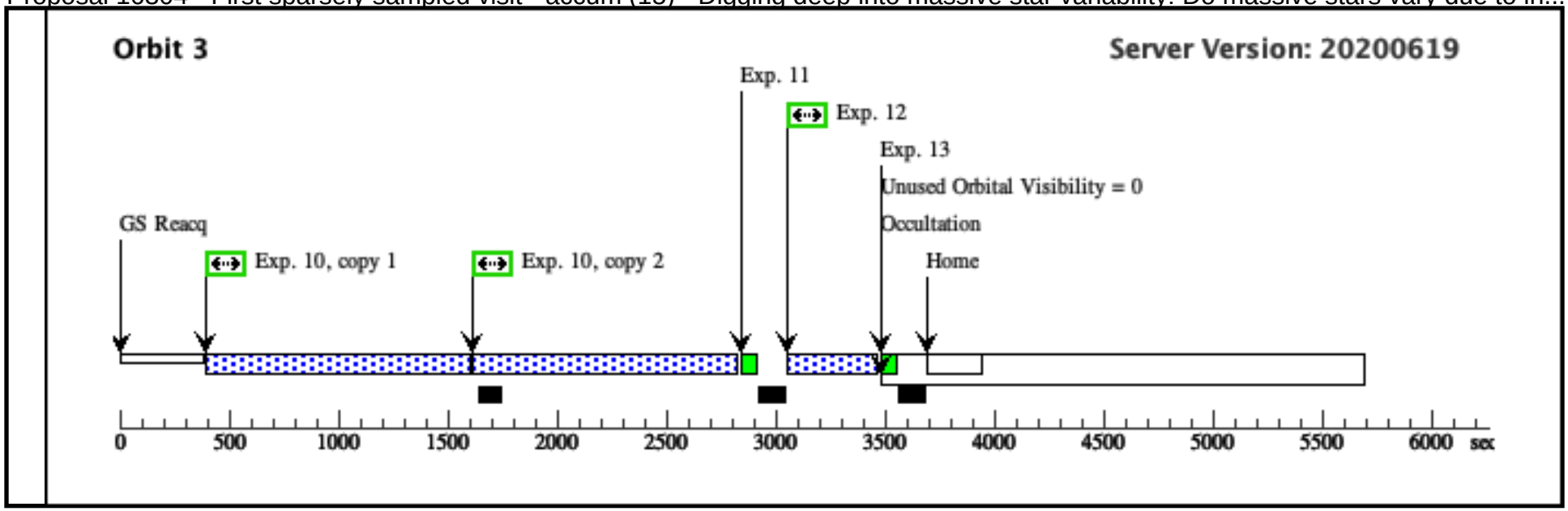
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD000294F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs (1200 Secs) *[==>]*	***[1]***
4	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			874 Secs (874 Secs) *[==>]*	***[1]***
5	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
6	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
7	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
8	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			397 Secs (397 Secs) *[==>]*	***[2]***
9	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
10	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[3]***
11	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[3]***
12	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			397 Secs (397 Secs) *[==>]*	***[3]***
13	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[3]***

Orbit Structure






Orbit 3
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Exp. 12
Exp. 13
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Occultation
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GS Reacq
Exp. 10, copy 1
Exp. 10, copy 2
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500
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1500
2000
2500
3000
3500
4000
4500
5000
5500
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sec

Visit

Proposal 16304, Second sparsely sampled visit - accum (16) Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 17-JAN-2021:17:00:00 AND 18-JAN-2021:05:00:00; ON HOLD

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
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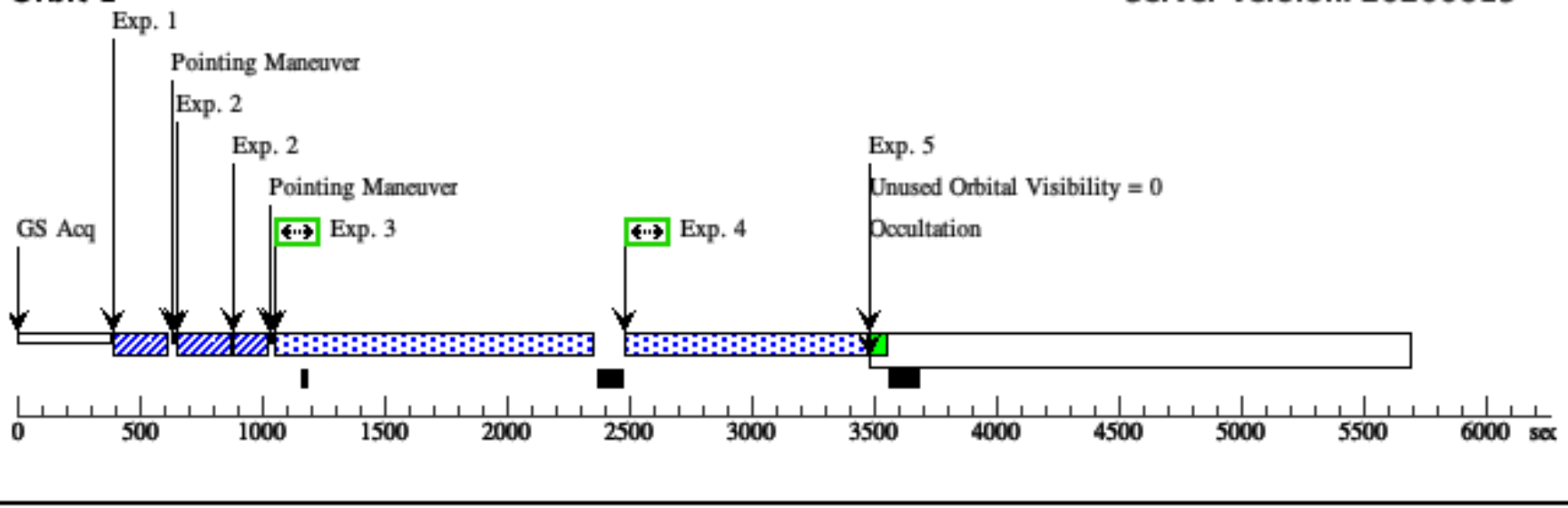
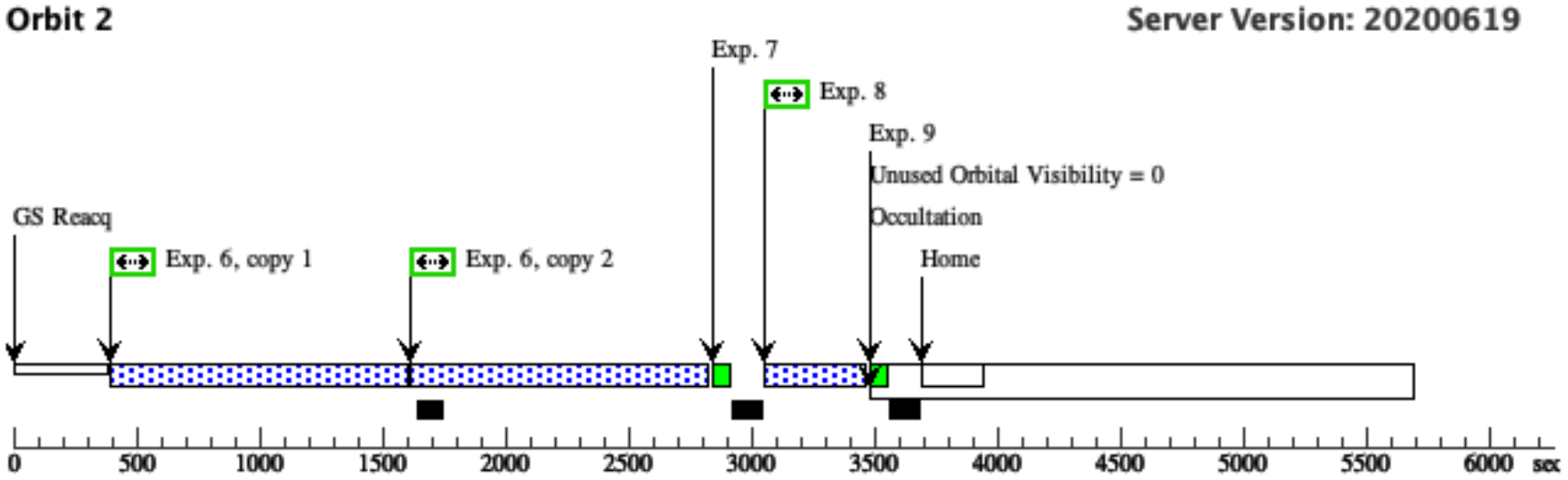
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD0002 94F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	 ***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	 ***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs (1200 Secs) *[==>]*	 ***[1]***
4	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			976 Secs (976 Secs) *[==>]*	 ***[1]***
5	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
6	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	 ***[2]***
7	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
8	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			397 Secs (397 Secs) *[==>]*	 ***[2]***
9	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16304, Third sparsely sampled visit - accum (17) Thu Dec 24 20:01:25 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 18-JAN-2021:16:00:00 AND 19-JAN-2021:05:00:00; ON HOLD

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

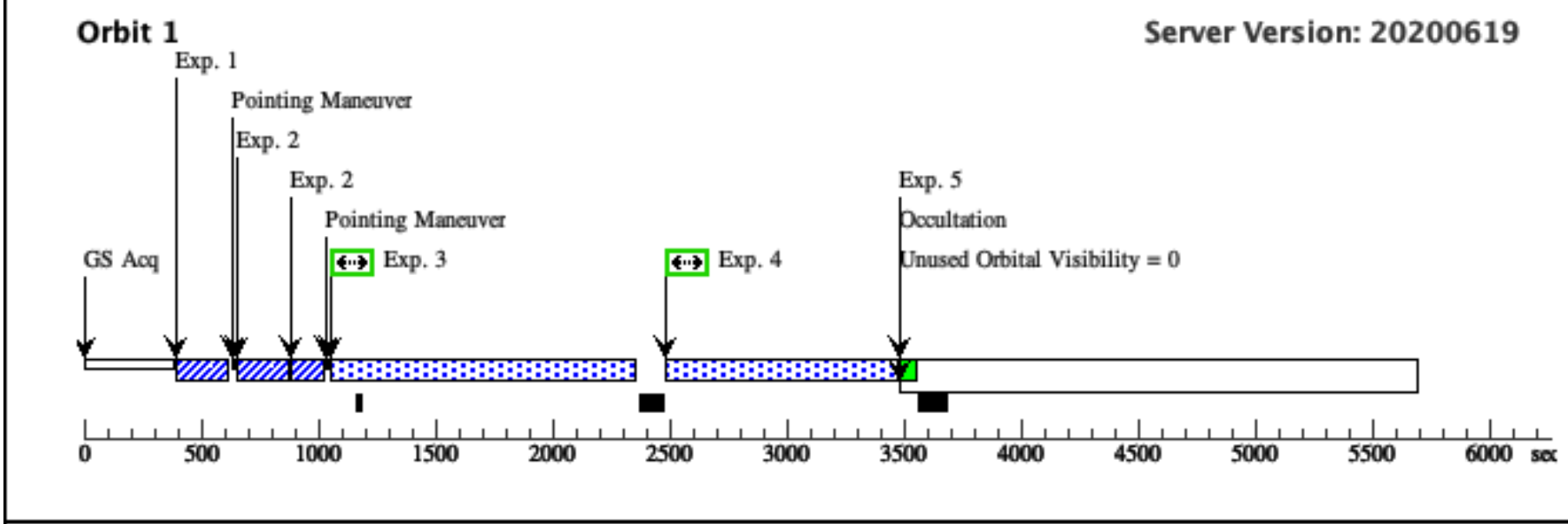
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

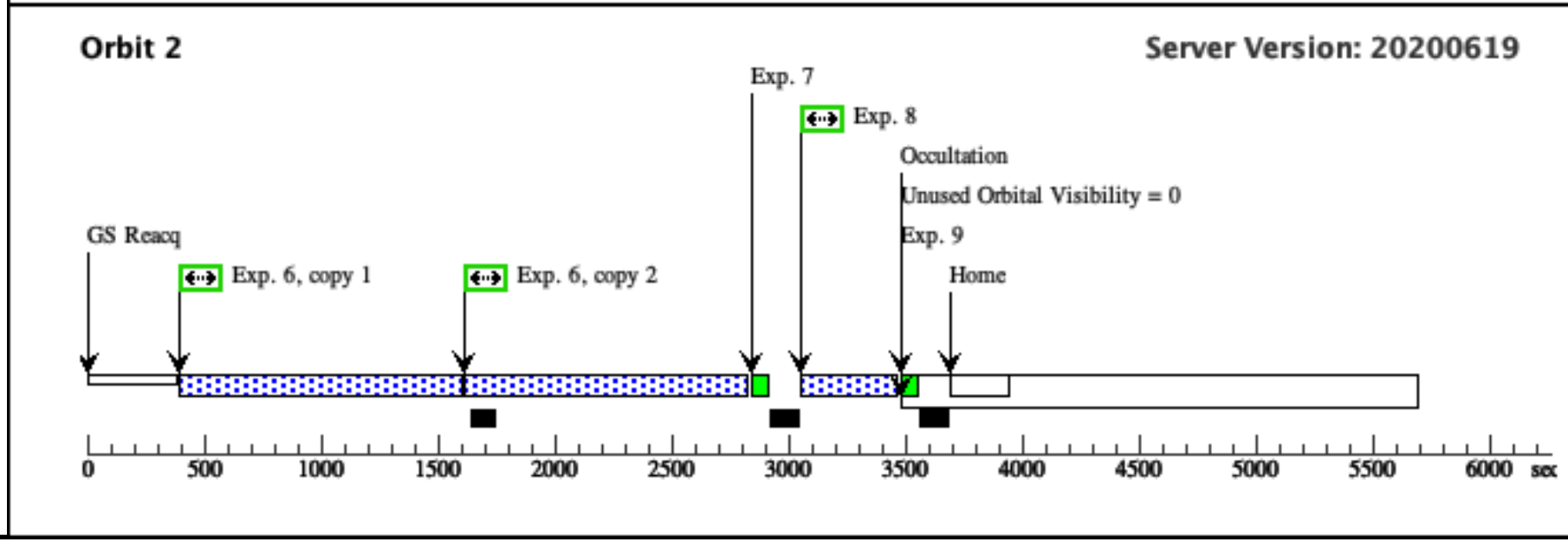
Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD0002 94F2S1HD000309F1		.1 Secs (0.1 Secs) *[==>]*	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs) *[==>]*	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs (1200 Secs) *[==>]*	***[1]***
4	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			976 Secs (976 Secs) *[==>]*	***[1]***
5	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
6	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs X 2 (2400 Secs) *[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***
7	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***
8	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			397 Secs (397 Secs) *[==>]*	***[2]***
9	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16304, Fourth sparsely sampled visit - accum (18) Thu Dec 24 20:01:26 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: BETWEEN 20-JAN-2021:15:00:00 AND 21-JAN-2021:05:00:00; ON HOLD ; VISIBILITY INTERVAL 56.5 M

On Hold Comments: This set of visits uses accum exposures instead and is on hold in case the data volume of visits 1-8 cannot be accomodated.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-269698	RA: 05 31 44.2083 (82.9342013d)	Proper Motion RA: 1.63826 mas/yr	V=12.22	Reference Frame: ICRS
	Alt Name1: SK-67-166	Dec: -67 38 1.38 (-67.63372d)	Proper Motion Dec: 0.601679 mas/yr	Continuum flux of 2E-12 erg/s/cm^2/AA at 1370 from previous IUE and FOS spectra. The TESS Magnitude (Tmag) is 11.1492	
	Alt Name2: TIC-425083410	Equinox: J2000	Epoch of Position: 2000		

Comments: The star HD-269698 is a O 4Ia star within the LMC. The coordinates and proper motions are drawn from TESS version 20190415 measurements accessed through the MAST archive. The E(B-V) = 0.98 from TESS using Schlegel.
Category=EXT-STAR
Description=[SUPERGIANT 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	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GSPAIR S1HD0002 94F2S1HD000309F1		.1 Secs (0.1 Secs)	
								[==>]	***[1]***
2	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs)	
								[==>]	***[1]***
3	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs (1200 Secs)	
								[==>]	***[1]***
4	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			880 Secs (880 Secs)	
								[==>]	***[1]***
5	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[1]***
6	Acquire (STIS.ta.1452751)	(1) HD-269698	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	NEW OBSET FULL ACQ; GSPAIR S1HD0002 94F2S1HD000309F1		.1 Secs (0.1 Secs)	
								[==>]	***[2]***
7	Peak Up (STIS.ta.1472521)	(1) HD-269698	STIS/CCD, ACQ/PEAK, 0.2X0.06	MIRROR				.3 Secs (0.3 Secs)	
								[==>]	***[2]***
8	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			1200 Secs (1200 Secs)	
								[==>]	***[2]***
9	Science Exposures (1453406)	(1) HD-269698	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A	WAVECAL=NO			880 Secs (880 Secs)	
								[==>]	***[2]***
10	Wave Cal	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				*[==>]*	***[2]***

Orbit Structure