16090 - ULLYSES LMC O2/O3 Stars STIS

Cycle: 27, Proposal Category: GO/DD

(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?*
1S	(1) BAT99-105 WAVE	STIS/CCD STIS/FUV-MAMA	2	23-Jun-2020 18:00:22.0	yes
1T	(1) BAT99-105 WAVE	STIS/CCD STIS/FUV-MAMA	2	23-Jun-2020 18:00:23.0	yes
2S	(2) LH114-7 WAVE	STIS/CCD STIS/FUV-MAMA	2	23-Jun-2020 18:00:24.0	yes
3S	(3) SK-67D108 WAVE	STIS/CCD STIS/FUV-MAMA	2	23-Jun-2020 18:00:26.0	yes
4S	(4) SK-67D22 WAVE	STIS/CCD STIS/FUV-MAMA	3	23-Jun-2020 18:00:28.0	yes

11 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 includes a subset of the massive ULLYSES stars being observed in the Magellanic clouds.

Depending on target brightness, the main FUV spectral range will generally use either the STIS E140M setting or the combination of the COS c1291 + c1611 settings. Sufficiently bright stars without good FUSE data in the archive will also be observed with the COS c1096 setting to provide coverage at shorter wavelengths. Where time permits, stars of type O9 or later will also be observed with STIS E230M/1978, while for supergiants of spectral type B5 or later E230M/2707 may also be included. Where possible, targets of a given spectral type were selected to span both a range in extinction and in rotation rates to support a variety of stellar and ISM studies.

Signal-to-noise requirements used to determine the desired exposures times were defined as follows:
COS/G130M/c1096: 20 / nine-pixel resel at 1080 A
COS/G130M/c1291: 30 / six-pixel resel at 1150 A
COS/G160M/c1611: 30 / six-pixel resel at 1590 A
COS/G185M/c1953: 30 / three-pixel resel at 1860 A
COS/G185M/c1986: 30 / three-pixel resel at 1980 A
STIS/E140M/c1425: 20 / two-pixel resel at 1200 A
STIS/E230M/c1978: 20 / two-pixel resel at 1800 A
STIS/E230M/c2707: 20 / two-pixel resel at 2800 A
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 16090, BAT99-105-STIS (1S) Tue Jun 23 22:00:28 GMT 2020

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%

Comments: vstatus; 1S; BAT99-105; P/STIS approved for submission; P/DW 23/06/20 ; intrev: internal review complete ; P/CP 23/06/20
vcheck; Enter targ name & Inst. & Resp. Sci.; BAT99-105 ; STIS ; DW
vcheck; ETC numbers entered in APT?; completed ...
in BOT, no stars found for either GSC2 or GALEX -- field saturated in DSS image and very crowded in 2MASS -- used WFPC2 F555W image (u2hk0302t) for checking field
vcheck; Any screening violations?; none, but ...
checking done via WFPC2 image and Gaia2 G magnitudes -- target has G=12.62, and all other stars within 7" are fainter -- but note that bright core of R136 is about 7.8 arcsec from target
vcheck; S/N ETC calcs done & documented?; completed ...
for 2 orbits, get only S/N ~ 12.5 at order peak near 1200 A -- would need 5 orbits to get S/N ~ 20 there
vcheck; Field images checked & saved?; yes -- 1998 Massey_image.png is the WFPC2 image (DSS and 2MASS too crowded)
vcheck; Selected ACQ strategy?; STIS F28x50LP 1 s
vcheck; Possible ACQ or Sci spoilers?; no -- brightest other star (O3 V) within 5" has G=13.75 -- ...
though there are other much fainter stars as well in the F555W image
vcheck; Field BOT clear?; no stars found for either GSC2 or GALEX, so field cleared with F555W image and Gaia2 G magnitudes
vcheck; Visual BOT check for stars not in catalog?; ok (see above)
vcheck; Orbit packing finalized?; for allocated 2 orbits, get S/N~12.5 near 1200 A -- ...
would need 3+2 orbits to get S/N~20 (or 4 orbits to get S/N~18)
vcheck; Buffer times optimized?; done (0.8 times ETC value of 900 s)
vcheck; Verify visit grouping correct; not needed if using 2 (or 4) orbits, but might need if 3+2 orbits used
vcheck; Is visit ready for int. review?; yes -- but need to decide on STIS vs COS and/or number of orbits ...
update -- will use 4 orbits of STIS E140M (2+2)
Allocated STIS orbits = 2

Diagnostics

(BAT99-105-STIS (1S)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	BAT99-105	RA: 05 38 42.1294 (84.6755392d)	Proper Motion RA: 0.0 sec of time/yr	V=12.78	Reference Frame: ICRS
	Alt Name1: BREY-77	Dec: -69 05 55.30 (-69.09869d)	Proper Motion Dec: 0.0 arcsec/yr	SpT=O2 If*; E(B-V)=0.36; B=12.9; V=12.8; F1160=9.00e-13	
	Alt Name2: MK-42	Equinox: J2000			

Comments: BAT99-105 : BAT99_105, Brey 77, Mk 42, Cl NGC 2070 MEL 42*
Previous name : Mk 42
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (Cl NGC 2070 MEL 42): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=Cl*+NGC+2070+MEL+42&submit=submit+id*
*SpT = O2 If**
COS/G130M/c1096 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G130M/c1291 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G160M/c1611 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G185M/c1921 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G185M/c1953 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G185M/c1986 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
STIS/E140M/c1425 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
STIS/E230M/c1978 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
STIS/E230M/c2707 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
Coordinate pedigree: 2MASS
Calculation performed 2020-02-24T17:55:00, v0.4
---
tstatus; BAT99-105; P/STIS approved for submission; S/COS [N/A]; P/DW 23/06/20; S/DW DD/MM/YY
tcheck; APT/SIMBAD target names: ; BAT99-105 'BAT99 105' ...
default SIMBAD name is Brey 77, aka Mk 42
tcheck; Target info verification status?; OK ...
SIMBAD type is O2 If and name and coordinates match, but SIMBAD B,V are too bright (Parker 1993 gives B,V=12.71,12.71 and de Marchi+2011 gives B,V=12.86,12.78)*
tcheck; Coordinates & P.M. updated?; yes -- 2MASS coordinates -- PM set to zero
tcheck; Adopted SED compared to Observations?; yes - adopted SED matches some IUE and FUSE, but those are suspect ...
both IUE large aperture and FUSE lwrs are likely contaminated by R136 core (FUSE mdrs less so) -- GHRS (both 2.0" and 0.25" apertures), FOS, and UBV (which all should be clean) suggest that adopted SED is a factor of 4-5 too high -- may need to switch to COS (see comments and plots in JIRA ticket)
Category=EXT-STAR
Description=[SUPERGIANT O, OF]
Extended=NO

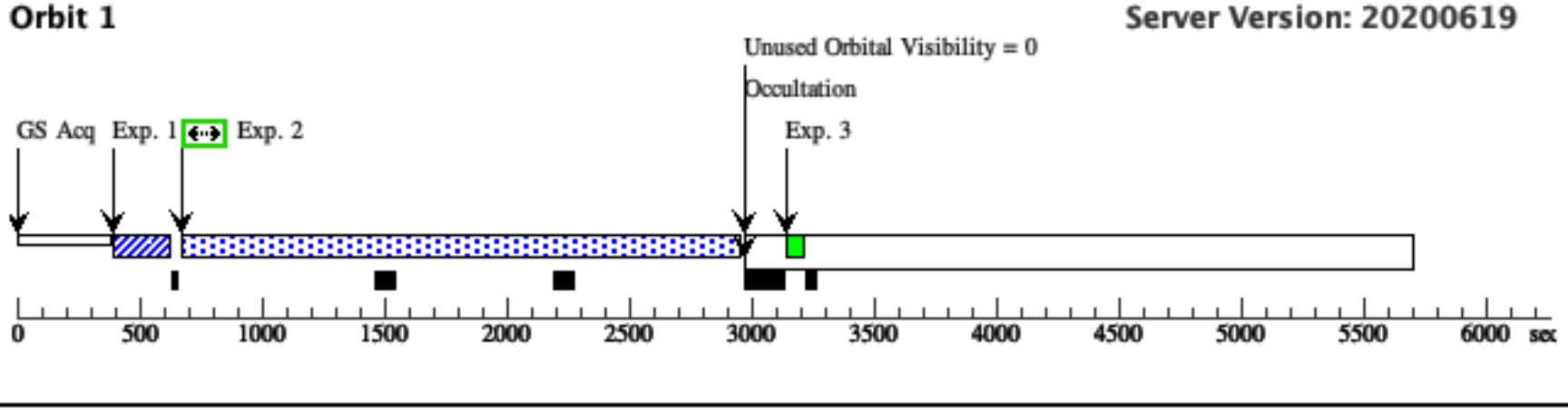
Exposures

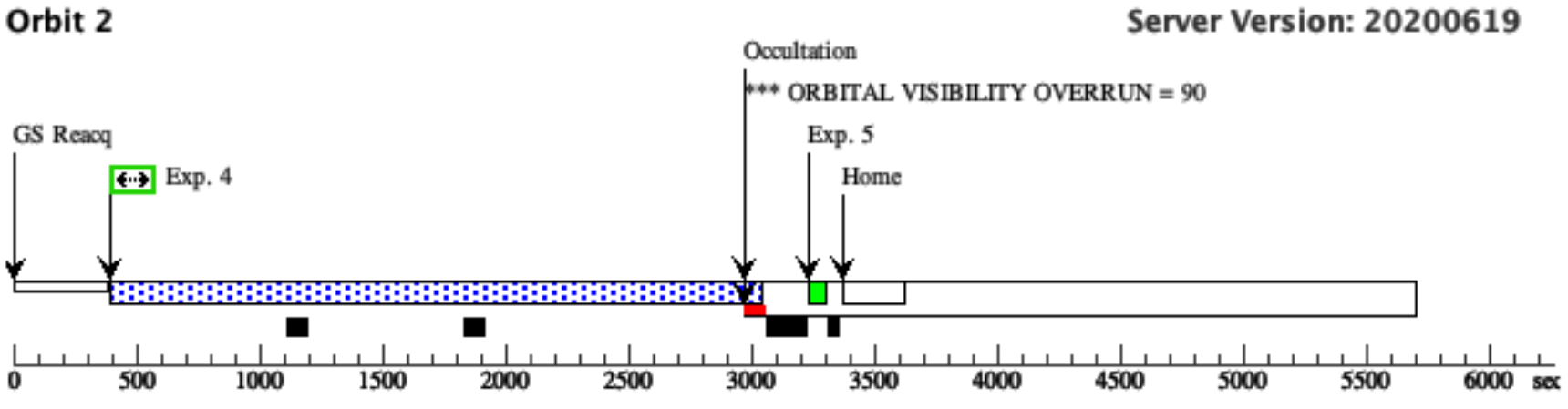
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (1431929)	(1) BAT99-105	STIS/CCD, ACQ, F28X50LP	MIRROR				1.0 Secs (1 Secs)	
								[==>]	***[1]***
2	E140M/1425a (1431930)	(1) BAT99-105	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=720		Sequence 2-3 Non-Int in BAT99-105-STIS (1S)	2192 Secs (2192 Secs)	
								[==>]	***[1]***

Comments: rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O2 If --> O2 I*
SED = BAT99-105_STIS_E140M_c1425_sed.fits
For exptime=4453.6 s, spectral region:
1200.0 +- 0.5 A achieves SNR=20.0/resel
global countrate (brightest segment): 7947.0 cts/s/segment
brightest pixel: 0.075 cts/s/pix at 1344.9 A
Calculation performed 2020-02-24T17:55:14, v0.4

3	E140M/1425a WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 2-3 Non-Int in BAT99-105-STIS (1S)	*[==>]*	***[1]***
4	E140M/1425b (1431930)	(1) BAT99-105	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=720		Sequence 4-5 Non-Int in BAT99-105-STIS (1S)	2638 Secs (2638 Secs)	
								[==>]	***[2]***
5	E140M/1425b WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 4-5 Non-Int in BAT99-105-STIS (1S)	*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16090, BAT99-105-STIS (1T) Tue Jun 23 22:00:28 GMT 2020

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%

Comments: vstatus; 1S; BAT99-105; P/STIS approved for submission; P/DW 23/06/20 ; intrev: internal review complete ; P/CP 23/06/20
vcheck; Enter targ name & Inst. & Resp. Sci.; BAT99-105 ; STIS ; DW
vcheck; ETC numbers entered in APT?; completed ...
in BOT, no stars found for either GSC2 or GALEX -- field saturated in DSS image and very crowded in 2MASS -- used WFPC2 F555W image (u2hk0302t) for checking field
vcheck; Any screening violations?; none, but ...
checking done via WFPC2 image and Gaia2 G magnitudes -- target has G=12.62, and all other stars within 7" are fainter -- but note that bright core of R136 is about 7.8 arcsec from target
vcheck; S/N ETC calcs done & documented?; completed ...
for 2 orbits, get only S/N ~ 12.5 at order peak near 1200 A -- would need 5 orbits to get S/N ~ 20 there
vcheck; Field images checked & saved?; yes -- 1998 Massey_image.png is the WFPC2 image (DSS and 2MASS too crowded)
vcheck; Selected ACQ strategy?; STIS F28x50LP 1 s
vcheck; Possible ACQ or Sci spoilers?; no -- brightest other star (O3 V) within 5" has G=13.75 -- ...
though there are other much fainter stars as well in the F555W image
vcheck; Field BOT clear?; no stars found for either GSC2 or GALEX, so field cleared with F555W image and Gaia2 G magnitudes
vcheck; Visual BOT check for stars not in catalog?; ok (see above)
vcheck; Orbit packing finalized?; for allocated 2 orbits, get S/N~12.5 near 1200 A -- ...
would need 3+2 orbits to get S/N~20 (or 4 orbits to get S/N~18)
vcheck; Buffer times optimized?; done (0.8 times ETC value of 900 s)
vcheck; Verify visit grouping correct; not needed if using 2 (or 4) orbits, but might need if 3+2 orbits used
vcheck; Is visit ready for int. review?; yes -- but need to decide on STIS vs COS and/or number of orbits ...
update -- will use 4 orbits of STIS E140M (2+2)
Allocated STIS orbits = 2

Diagnostics

(BAT99-105-STIS (1T)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	BAT99-105	RA: 05 38 42.1294 (84.6755392d)	Proper Motion RA: 0.0 sec of time/yr	V=12.78	Reference Frame: ICRS
	Alt Name1: BREY-77	Dec: -69 05 55.30 (-69.09869d)	Proper Motion Dec: 0.0 arcsec/yr	SpT=O2 If*; E(B-V)=0.36; B=12.9; V=12.8; F1160=9.00e-13	
	Alt Name2: MK-42	Equinox: J2000			

Comments: BAT99-105 : BAT99_105, Brey 77, Mk 42, Cl NGC 2070 MEL 42*
Previous name : Mk 42
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (Cl NGC 2070 MEL 42): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=Cl*+NGC+2070+MEL+42&submit=submit+id*
*SpT = O2 If**
COS/G130M/c1096 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G130M/c1291 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G160M/c1611 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G185M/c1921 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G185M/c1953 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
COS/G185M/c1986 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
STIS/E140M/c1425 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
STIS/E230M/c1978 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
STIS/E230M/c2707 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam)
Coordinate pedigree: 2MASS
Calculation performed 2020-02-24T17:55:00, v0.4
---
tstatus; BAT99-105; P/STIS approved for submission; S/COS [N/A]; P/DW 23/06/20; S/DW DD/MM/YY
tcheck; APT/SIMBAD target names: ; BAT99-105 'BAT99 105' ...
default SIMBAD name is Brey 77, aka Mk 42
tcheck; Target info verification status?; OK ...
SIMBAD type is O2 If and name and coordinates match, but SIMBAD B,V are too bright (Parker 1993 gives B,V=12.71,12.71 and de Marchi+2011 gives B,V=12.86,12.78)*
tcheck; Coordinates & P.M. updated?; yes -- 2MASS coordinates -- PM set to zero
tcheck; Adopted SED compared to Observations?; yes - adopted SED matches some IUE and FUSE, but those are suspect ...
both IUE large aperture and FUSE lwrs are likely contaminated by R136 core (FUSE mdrs less so) -- GHRS (both 2.0" and 0.25" apertures), FOS, and UBV (which all should be clean) suggest that adopted SED is a factor of 4-5 too high -- may need to switch to COS (see comments and plots in JIRA ticket)
Category=EXT-STAR
Description=[SUPERGIANT O, OF]
Extended=NO

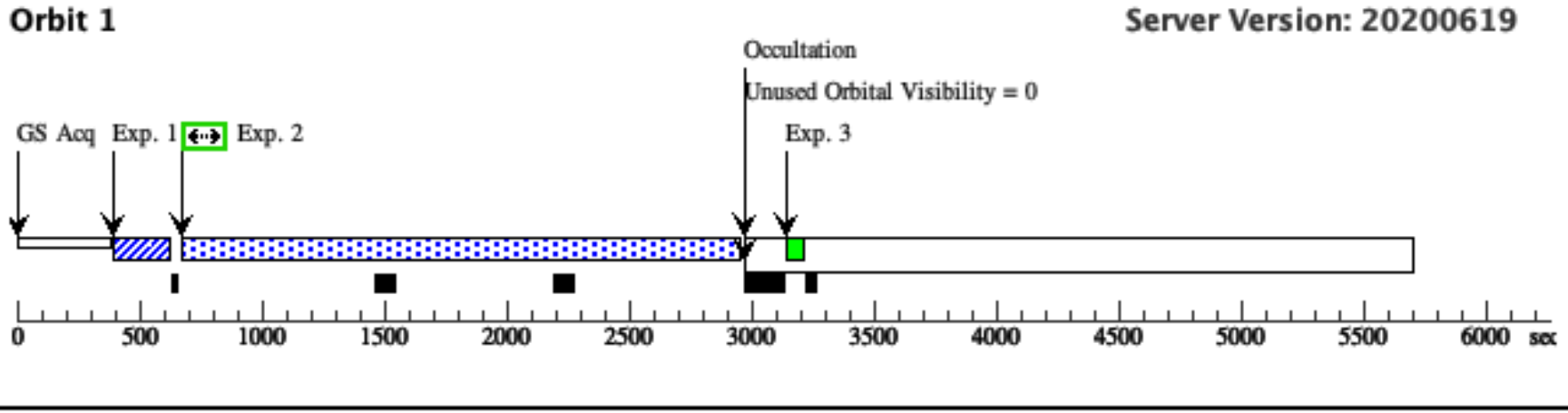
Exposures

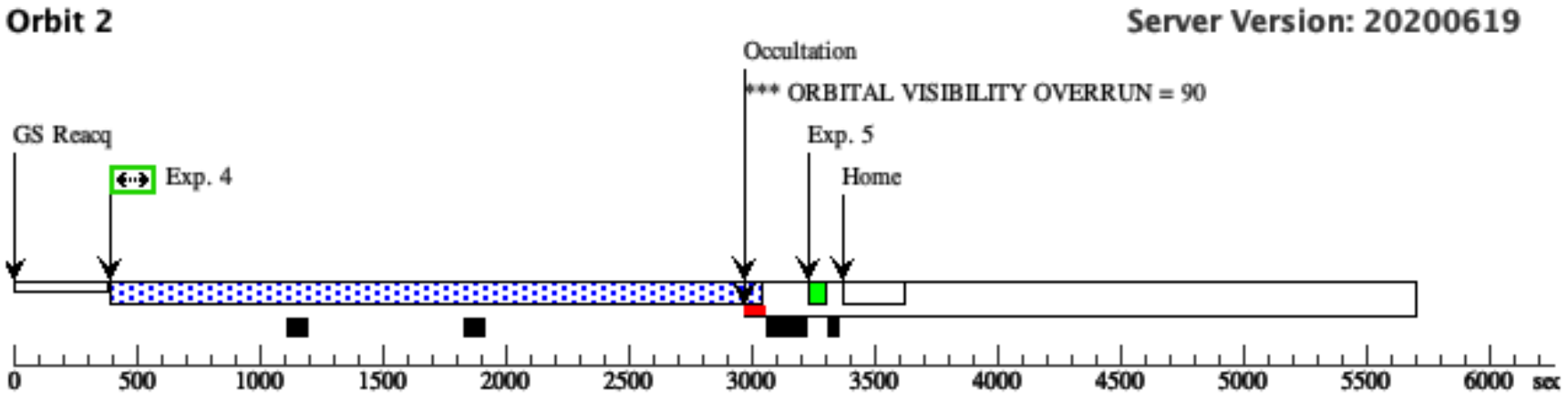
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (1431929)	(1) BAT99-105	STIS/CCD, ACQ, F28X50LP	MIRROR				1.0 Secs (1 Secs)	
								[==>]	***[1]***
2	E140M/1425c (1431930)	(1) BAT99-105	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=720		Sequence 2-3 Non-Int in BAT99-105-STIS (1T)	2192 Secs (2192 Secs)	
								[==>]	***[1]***

Comments: rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmc30dor=0.360), flux1160 +- 30.0A flux=9e-13 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O2 If --> O2 I*
SED = BAT99-105_STIS_E140M_c1425_sed.fits
For exptime=4453.6 s, spectral region:
1200.0 +- 0.5 A achieves SNR=20.0/resel
global countrate (brightest segment): 7947.0 cts/s/segment
brightest pixel: 0.075 cts/s/pix at 1344.9 A
Calculation performed 2020-02-24T17:55:14, v0.4

3	E140M/1425c WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 2-3 Non-Int in BAT99-105-STIS (1T)	*[==>]*	***[1]***
4	E140M/1425d (1431930)	(1) BAT99-105	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=720		Sequence 4-5 Non-Int in BAT99-105-STIS (1T)	2638 Secs (2638 Secs)	
								[==>]	***[2]***
5	E140M/1425d WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 4-5 Non-Int in BAT99-105-STIS (1T)	*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16090, LH114-7-STIS (2S) Tue Jun 23 22:00:28 GMT 2020

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%

Comments: vstatus; 2S; LH114-7; P/STIS approved for submission; P/DW 23/06/20 ; intrev: internal review complete ; P/CP 23/06/20
vcheck; Enter targ name & Inst. & Resp. Sci.; LH114-7 ; STIS ; DW
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; completed -- ...
acq: F28x50LP / 1.5 sec yields S/N~144 -- science: E140M / 4800 sec yields S/N~21 at 1200 A
vcheck; Field images checked & saved?; yes -- DSS has apparently single dominant source within the 5" radius clearance ...
region -- acq image from existing STIS spectra has fainter object within ~0.4", but nothing else in the 5"x5" acq box
vcheck; Selected ACQ strategy?; yes -- F28x50LP, 2 sec (similar to successful acq for existing STIS spectra)
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; yes -- see above
vcheck; Visual BOT check for stars not in catalog?; yes
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes -- ETC gave 0.8 x 500 sec = 400 sec
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; yes
Allocated STIS orbits = 2

Diagnostics

(LH114-7-STIS (2S)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

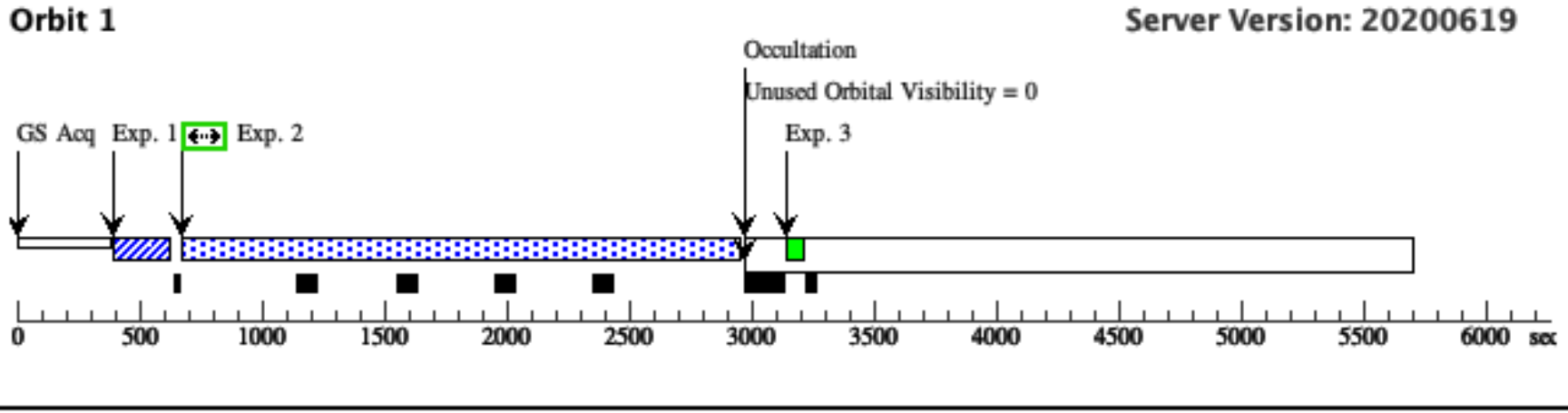
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	LH114-7 Alt Name1: L72-LH-114-7 Alt Name2: LMC2-675	RA: 05 43 13.0000 (85.8041667d) Dec: -67 51 17.15 (-67.85476d) Equinox: J2000	Proper Motion RA: 0.0 sec of time/yr Proper Motion Dec: 0.0 arcsec/yr	V=13.66 SpT=O3 III(f)*; E(B-V)=0.03; U=12.3; B=13.4; V=13.7; F1160=8.33e-13; F1360=6.26e-13; F1700=4.33e-13	Reference Frame: ICRS

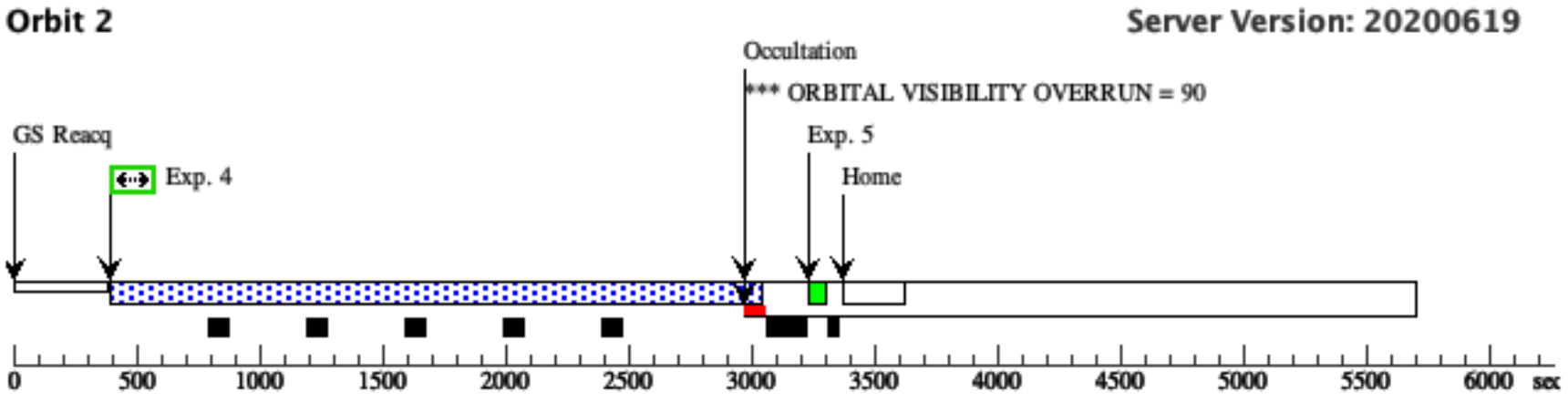
Comments: LH114-7 : lmc2-675, lmc2_675, [L72] LH 114-7
Previous name : lmc2-675
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link ([L72] LH 114-7): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=[L72]+LH+114-7&submit=submit+id
*SpT = O3 III(f)**
COS/G130M/c1096 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1160 +- 30.0A flux=8.3e-13 Flam)
COS/G130M/c1291 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1360 +- 30.0A flux=6.3e-13 Flam)
COS/G160M/c1611 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1700 +- 5.0A flux=4.3e-13 Flam)
COS/G185M/c1921 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1700 +- 5.0A flux=4.3e-13 Flam)
COS/G185M/c1953 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1700 +- 5.0A flux=4.3e-13 Flam)
COS/G185M/c1986 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1700 +- 5.0A flux=4.3e-13 Flam)
STIS/E140M/c1425 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1360 +- 30.0A flux=6.3e-13 Flam)
STIS/E230M/c1978 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1700 +- 5.0A flux=4.3e-13 Flam)
STIS/E230M/c2707 : rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1700 +- 5.0A flux=4.3e-13 Flam)
Coordinate pedigree: InputCatalog
Calculation performed 2020-02-24T17:56:15, v0.4
---
tstatus; LH114-7; P/STIS approved for submission; S/COS [N/A]; P/DW 23/06/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; LH114-7 '[L72] LH 114-7' ...
aka LMC 2-675
tcheck; Target info verification status?; OK -- SIMBAD type is O2 III(f) + O V and name and coords match, but ...*
coords are from Spitzer SAGE -- Gaia DR2 has 05:43:13.00 -67:51:17.15 with G=13.66 -- 2MASS has 05:43:12.99 -67:51:17.17 with J=14.12 -- both differ by ~1.2" from SIMBAD -- no other sources with G<17.5 within 12" -- though the acq for the existing STIS observations does indicate a fainter star about 0.4 arcsec away that may contaminate the photometry
tcheck; Coordinates & P.M. updated?; yes -- coords set to Gaia DR2 values, pm set to 0.0
tcheck; Adopted SED compared to Observations?; yes -- adopted SED matches continuum in STIS/G140L and FUSE, ...
but falls somewhat below the STIS/G430M and G750M and the UBV -- in any case, the adopted F(1360)=7e-13 and E(B-V)=0.07 should be fine for modeling the proposed E140M observation
Category=EXT-STAR
Description=[GIANT O, OF]
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 (STIS.ta.1443564)	(2) LH114-7	STIS/CCD, ACQ, F28X50LP	MIRROR				1.5 Secs (1.5 Secs) *[==>]*	***[1]***
2	E140M/1425a (STIS.sp.1443560)	(2) LH114-7	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=400		Sequence 2-3 Non-Int in LH114-7-STIS (2S)	2190 Secs (2190 Secs) *[==>]*	***[1]***
	Comments: rn-max(WM-Basic(O3 III, Z=0.008, Teff=48978, log_lum=5.95, log_g=3.94) (extinction lmcavg=0.030), flux1360 +- 30.0A flux=6.3e-13 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: O3 III(f)* --> O3 III* *SED = LH114-7_STIS_E140M_c1425_sed.fits* *For exptime=5241.0 s, spectral region:* *1200.0 +- 0.5 A achieves SNR=20.0/resel* *global countrate (brightest segment): 3653.1 cts/s/segment* *brightest pixel: 0.037 cts/s/pix at 1297.4 A* *Calculation performed 2020-02-24T17:56:27, v0.4*								
3	E140M/1425a WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 2-3 Non-Int in LH114-7-STIS (2S)	*[==>]*	***[1]***
4	E140M/1425b (STIS.sp.1443560)	(2) LH114-7	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=400		Sequence 4-5 Non-Int in LH114-7-STIS (2S)	2638 Secs (2638 Secs) *[==>]*	***[2]***
5	E140M/1425b WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 4-5 Non-Int in LH114-7-STIS (2S)	*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16090, SK-67D108-STIS (3S) Tue Jun 23 22:00:29 GMT 2020

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%

Comments: vstatus; 3S; SK-67D108; P/STIS approved for submission; P/DW 23/06/20 ; intrev: internal review complete ; P/CP 23/06/20
vcheck; Enter targ name & Inst. & Resp. Sci.; SK-67D108 ; STIS ; DW
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no -- GSC2 lists 1 safe source (target)
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes -- target appears single, symmetric; no other objects within 5" clearance circle
vcheck; Selected ACQ strategy?; yes -- F28x50LP, 1 sec gives S/N~190
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; yes -- few fainter, redder stars within 30"
vcheck; Visual BOT check for stars not in catalog?; yes -- 2MASS JHK available for most
vcheck; Orbit packing finalized?; yes -- but need to decide on using 1 or 2 orbits -- ...
texp=2200 sec (one orbit) yields S/N ~20 near 1200 A for adopted SED -- but that SED may overestimate the actual flux near 1200 (comparing with observed IUE swp spectrum) -- so may be advisable to go ahead with 2 orbits, as originally planned
vcheck; Buffer times optimized?; yes -- from ETC 1444212, t_buf = 0.8 x 238 sec = 190 sec (for adopted SED)
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; yes -- need to decide on number of orbits (1 or 2)
Allocated STIS orbits = 2

Diagnostics

(SK-67D108-STIS (3S)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

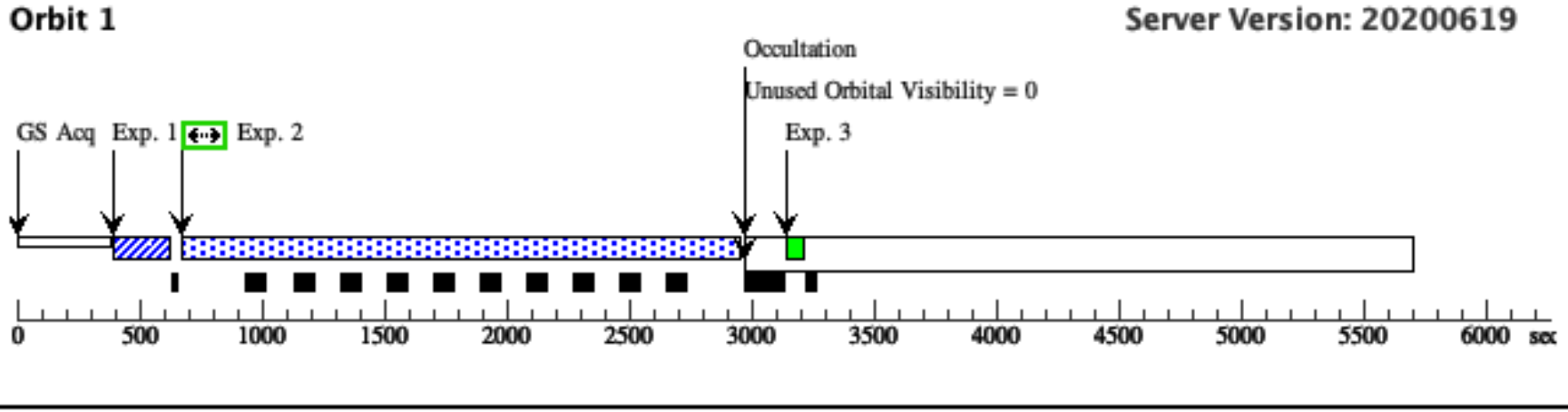
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SK-67D108	RA: 05 26 26.4631 (81.6102629d)	Proper Motion RA: 0.0 sec of time/yr	V=12.57	Reference Frame: ICRS
	Alt Name1: SK-67-108	Dec: -67 37 20.46 (-67.62235d)	Proper Motion Dec: 0.0 arcsec/yr	SpT=O4-5 III; E(B-V)=0.08; U=11.3; B=12.4; V=12.6; F1160=2.16e-12; F1360=1.30e-12; F1700=8.80e-13; F2200=4.52e-13	
	Alt Name2: M2002-135697	Equinox: J2000			

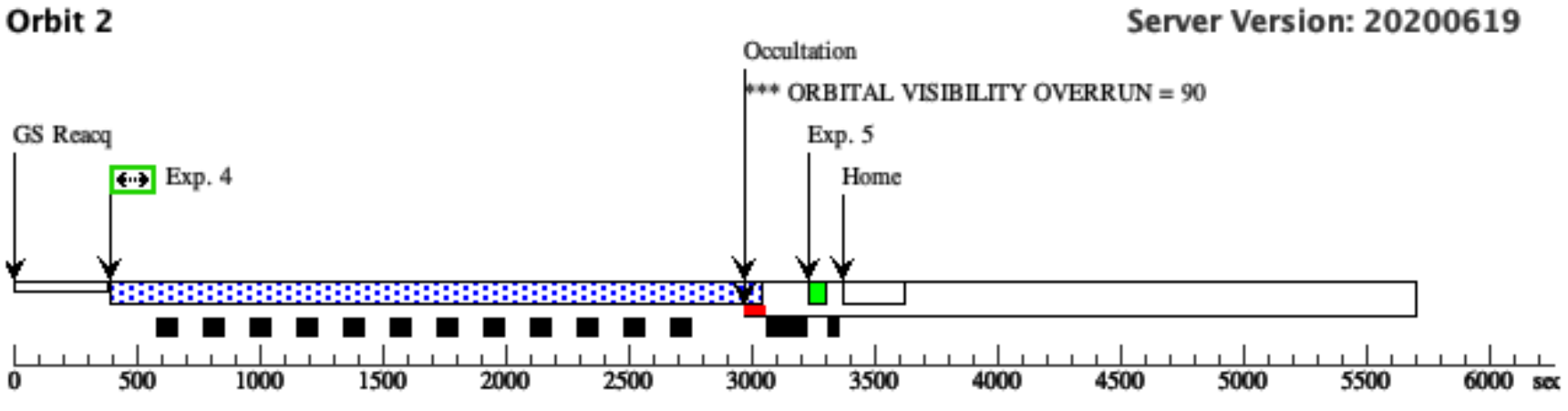
Comments: SK-67D108 : [M2002]_135697, Sk -67 108, SK -67 108
Previous name : Sk -67 108
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (SK -67 108): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=SK+-67+108&submit=submit+id
SpT = O4-5 III
COS/G130M/c1096 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1160 +- 30.0A flux=2.2e-12 Flam)
COS/G130M/c1291 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1360 +- 30.0A flux=1.3e-12 Flam)
COS/G160M/c1611 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1700 +- 5.0A flux=8.8e-13 Flam)
COS/G185M/c1921 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1700 +- 5.0A flux=8.8e-13 Flam)
COS/G185M/c1953 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1700 +- 5.0A flux=8.8e-13 Flam)
COS/G185M/c1986 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux2200 +- 5.0A flux=4.5e-13 Flam)
STIS/E140M/c1425 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1360 +- 30.0A flux=1.3e-12 Flam)
STIS/E230M/c1978 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux2200 +- 5.0A flux=4.5e-13 Flam)
STIS/E230M/c2707 : rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux2200 +- 5.0A flux=4.5e-13 Flam)
Coordinate pedigree: Gaia
Calculation performed 2020-02-24T17:58:53, v0.4
---
tstatus; SK-67D108; P/STIS approved for submission; S/COS not started; P/DW 23/06/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; SK-67D108 'Sk-67 108'
tcheck; Target info verification status?; OK -- O4-5 III (Fitzpatrick 1988), V=12.57, B-V=-0.20 (Massey 2002)
tcheck; Coordinates & P.M. updated?; yes -- slight adjustment to Gaia2
tcheck; Adopted SED compared to Observations?; yes -- but was not able to find a good fit to all the available data ...
finally adopted a slightly higher F(1360)=1.5e-12 and a slightly higher E(B-V)=0.10 in an attempt to fit the swp/E140M region -- but UBV and the IUE lwp are still underestimated by ~20%, the slope of the data/model ratio for the IUE swp is non-zero, and the FUSE is also underestimated by ~20% over most of the range -- there may be some contamination of the IUE and FUSE (lwrs) data, but the possible contaminants are fainter and redder than the target
Category=EXT-STAR
Description=[GIANT 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 (1444077)	(3) SK-67D108	STIS/CCD, ACQ, F28X50LP	MIRROR				1.0 Secs (1 Secs) *[==>]*	***[1]***
2	E140M/1425a (1444212)	(3) SK-67D108	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=190.0		Sequence 2-3 Non-Int in SK-67D108-STIS (3S)	2192 Secs (2192 Secs) *[==>]*	***[1]***
	Comments: rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1360 +- 30.0A flux=1.3e-12 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: O4-5 III --> O4 III* *SED = SK-67D108_STIS_E140M_c1425_sed.fits* *For exptime=2749.2 s, spectral region:* *1200.0 +- 0.5 A achieves SNR=20.0/resel* *global countrate (brightest segment): 7385.6 cts/s/segment* *brightest pixel: 0.074 cts/s/pix at 1308.9 A* *Calculation performed 2020-02-24T17:59:05, v0.4*								
3	E140M/1425a WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 2-3 Non-Int in SK-67D108-STIS (3S)	*[==>]*	***[1]***
4	E140M/1425b (1444212)	(3) SK-67D108	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=190.0		Sequence 4-5 Non-Int in SK-67D108-STIS (3S)	2638 Secs (2638 Secs) *[==>]*	***[2]***
	Comments: rn-max(WM-Basic(O4 III, Z=0.008, Teff=45709, log_lum=5.87, log_g=3.89) (extinction lmcavg=0.080), flux1360 +- 30.0A flux=1.3e-12 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: O4-5 III --> O4 III* *SED = SK-67D108_STIS_E140M_c1425_sed.fits* *For exptime=2749.2 s, spectral region:* *1200.0 +- 0.5 A achieves SNR=20.0/resel* *global countrate (brightest segment): 7385.6 cts/s/segment* *brightest pixel: 0.074 cts/s/pix at 1308.9 A* *Calculation performed 2020-02-24T17:59:05, v0.4*								
5	E140M/1425b WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 4-5 Non-Int in SK-67D108-STIS (3S)	*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 16090, SK-67D22-STIS (4S) Tue Jun 23 22:00:29 GMT 2020

Diagnostic Status: Warning

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

Special Requirements: SCHED 100%

Comments: vstatus; 4S; SK-67D22; P/STIS approved for submission; P/DW 23/06/20 ; intrev: internal review complete ; P/CP 23/06/20
vcheck; Enter targ name & Inst. & Resp. Sci.; SK-67D22 ; STIS ; DW
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no -- GSC2 had 1 safe (target); GALEX had 2 safe (both target?)
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes -- DSS, GALEX, archival STIS 50CCD image, STIS acq image
vcheck; Selected ACQ strategy?; yes -- F28x50LP, 1 sec gives S/N~130 (similar to previous successful STIS acq)
vcheck; Possible ACQ or Sci spoilers?; no -- no other objects in acq box; no other bright objects within 5" -- ...
GALEX image is asymmetric, but no obvious candidates in the other available images that could be responsible
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; yes -- ...
checked 2MASS, Zaritsky -- several faint stars within about 10" are all at least 3.5-4.5 mag fainter in UBV
vcheck; Orbit packing finalized?; yes -- but need to decide between 2 and 3 orbits -- ...
new SED gives S/N~20 in continuum near 1200 A in 4800 sec (2 orbits); archival STIS G140L spectrum gives somewhat lower S/N at 1200 A in that time (ETC 1444454), but there appears to be some absorption near 1200 A (so not at continuum there) -- in view of the uncertainty (SED is higher than observed G140L), it may be best to keep the visit at 3 orbits
vcheck; Buffer times optimized?; yes -- 510 (from ETC) x 0.8 ~ 410 sec
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; yes -- need to decide on number of orbits (2 or 3)
Allocated STIS orbits = 3

Diagnostics

(SK-67D22-STIS (4S)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(SK-67D22-STIS (4S)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

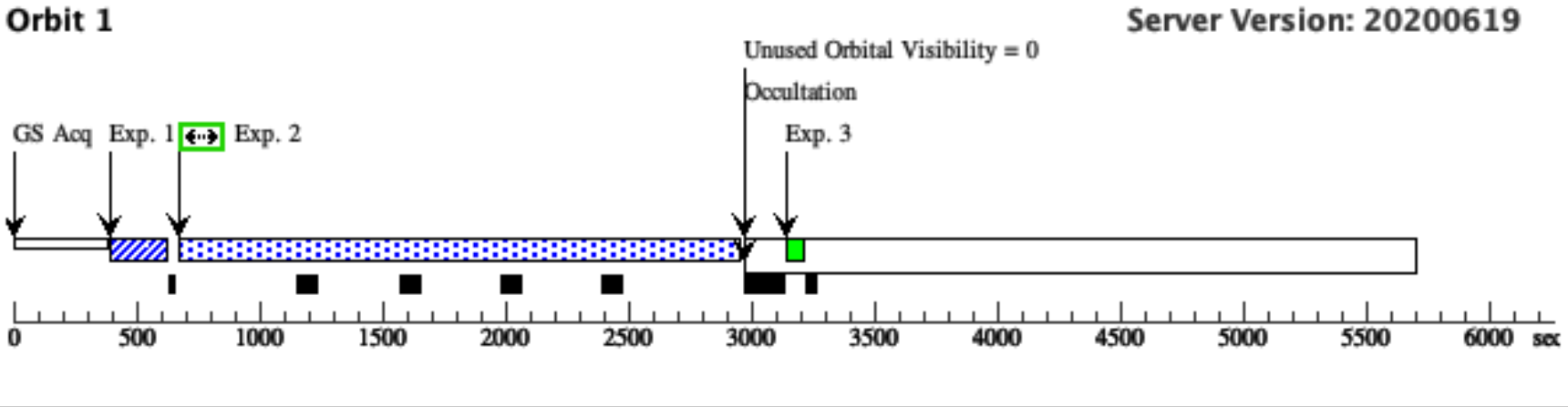
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SK-67D22	RA: 04 57 27.4549 (74.3643954d)	Proper Motion RA: 0.0 sec of time/yr	V=13.44	Reference Frame: ICRS
	Alt Name1: BAT99-12	Dec: -67 39 2.87 (-67.65080d)	Proper Motion Dec: 0.0 arcsec/yr	SpT=O2 If*/WN5; E(B-V)=0.10 ; U=12.2; B=13.3; V=13.4; F1160=8.00e-13; F1360=6.00e-13; F1700=4.00e-13	
	Alt Name2: SK-67-22	Equinox: J2000			

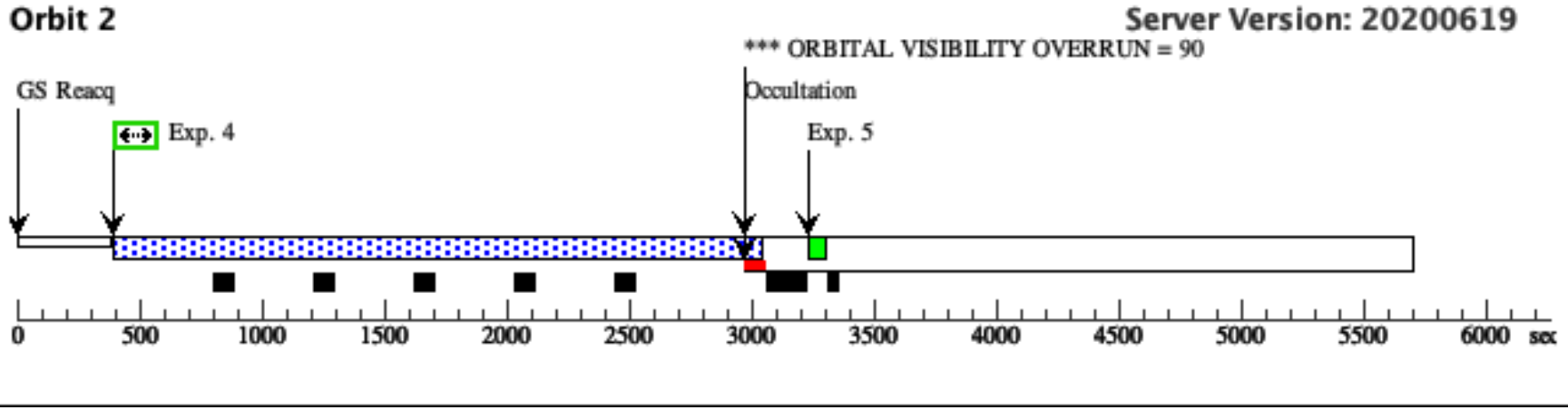
Comments: SK-67D22 : BAT99_12, Sk -67 22, SK -67 22
Previous name : Sk -67 22
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (SK -67 22): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=SK+-67+22&submit=submit+id
SpT = O2 If/WN5*
COS/G130M/c1096 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1160 +- 30.0A flux=8e-13 Flam)
COS/G130M/c1291 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1360 +- 30.0A flux=6e-13 Flam)
COS/G160M/c1611 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1700 +- 5.0A flux=4e-13 Flam)
COS/G185M/c1921 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1700 +- 5.0A flux=4e-13 Flam)
COS/G185M/c1953 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1700 +- 5.0A flux=4e-13 Flam)
COS/G185M/c1986 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1700 +- 5.0A flux=4e-13 Flam)
STIS/E140M/c1425 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1360 +- 30.0A flux=6e-13 Flam)
STIS/E230M/c1978 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1700 +- 5.0A flux=4e-13 Flam)
STIS/E230M/c2707 : rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1700 +- 5.0A flux=4e-13 Flam)
Coordinate pedigree: Gaia
v sin i = 200
Calculation performed 2020-02-24T17:54:44, v0.4
---
tstatus; SK-67D22; P/STIS approved for submission; S/COS [N/A]; P/DW 23/06/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; SK-67D22 'Sk -67 22' ...
aka Brey 10a, BAT99 12, [M2002] LMC 34056
tcheck; Target info verification status?; ok -- SIMBAD type O2 If/WN5; UBV = 12.21,13.31,13.50*
tcheck; Coordinates & P.M. updated?; yes -- updated RA slightly to Gaia2
tcheck; Adopted SED compared to Observations?; yes -- adopted F(1360)=7.0e-13, E(B-V)=0.11 -- ...
new SED agrees well with STIS G430M, is slightly above G140L and slightly below FUSE and STIS G750M
Category=EXT-STAR
Description=[SUPERGIANT O, OF, WOLF RAYET - WN]
Extended=NO

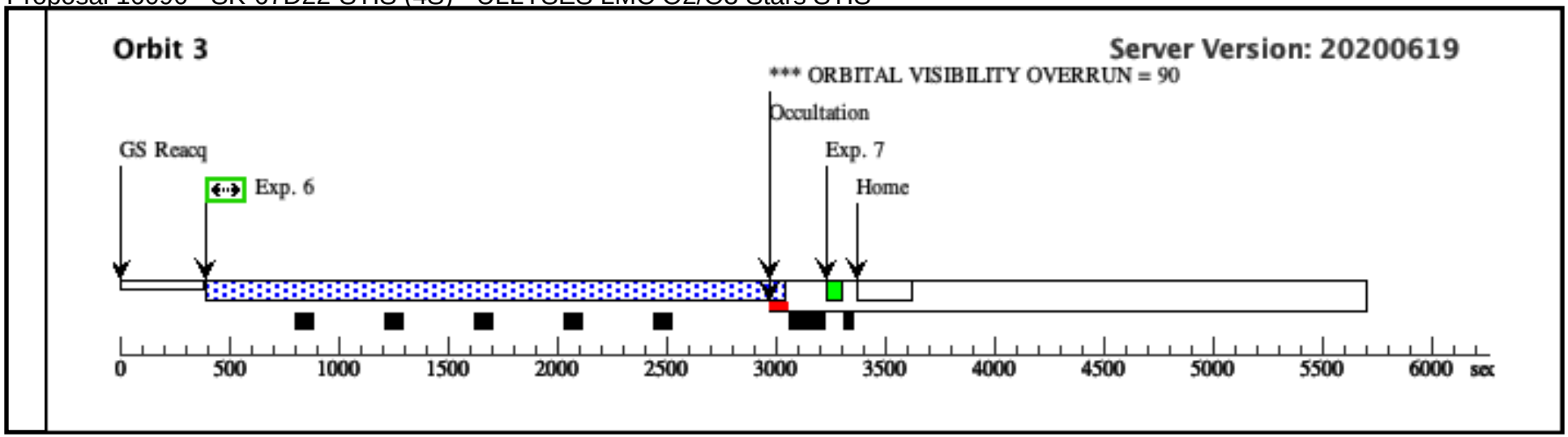
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (1444446)	(4) SK-67D22	STIS/CCD, ACQ, F28X50LP	MIRROR				1.0 Secs (1 Secs) *[==>]*	***[1]***
Comments: previous STIS observations used 1.3 sec									
2	E140M/1425a (1444455)	(4) SK-67D22	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=410.0		Sequence 2-3 Non-Int in SK-67D22-STIS (4S)	2192 Secs (2192 Secs) *[==>]*	***[1]***
Comments: rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1360 +- 30.0A flux=6e-13 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: O2 If*/WN5 --> O2 I* *SED = SK-67D22_STIS_E140M_c1425_sed.fits* *For exptime=6772.4 s, spectral region:* *1200.0 +- 0.5 A achieves SNR=20.0/resel* *global countrate (brightest segment): 3410.8 cts/s/segment* *brightest pixel: 0.034 cts/s/pix at 1320.4 A* *Calculation performed 2020-02-24T17:54:58, v0.4*									
3	E140M/1425a WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 2-3 Non-Int in SK-67D22-STIS (4S)	*[==>]*	***[1]***
4	E140M/1425b (1444455)	(4) SK-67D22	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=410.0		Sequence 4-5 Non-Int in SK-67D22-STIS (4S)	2638 Secs (2638 Secs) *[==>]*	***[2]***
Comments: rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1360 +- 30.0A flux=6e-13 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: O2 If*/WN5 --> O2 I* *SED = SK-67D22_STIS_E140M_c1425_sed.fits* *For exptime=6772.4 s, spectral region:* *1200.0 +- 0.5 A achieves SNR=20.0/resel* *global countrate (brightest segment): 3410.8 cts/s/segment* *brightest pixel: 0.034 cts/s/pix at 1320.4 A* *Calculation performed 2020-02-24T17:54:58, v0.4*									
5	E140M/1425b WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 4-5 Non-Int in SK-67D22-STIS (4S)	*[==>]*	***[2]***
6	E140M/1425c (1444455)	(4) SK-67D22	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=410.0		Sequence 6-7 Non-Int in SK-67D22-STIS (4S)	2638 Secs (2638 Secs) *[==>]*	***[3]***
Comments: rn-max(ck04models(O2I,Teff=40300,metallicity=0.008,logG=4.5) (extinction lmcavg=0.100), flux1360 +- 30.0A flux=6e-13 Flam); stis,fuvmama,e140m,c1425,0.2x0.2,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: O2 If*/WN5 --> O2 I* *SED = SK-67D22_STIS_E140M_c1425_sed.fits* *For exptime=6772.4 s, spectral region:* *1200.0 +- 0.5 A achieves SNR=20.0/resel* *global countrate (brightest segment): 3410.8 cts/s/segment* *brightest pixel: 0.034 cts/s/pix at 1320.4 A* *Calculation performed 2020-02-24T17:54:58, v0.4*									
7	E140M/1425c WAVECAL	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A			Sequence 6-7 Non-Int in SK-67D22-STIS (4S)	*[==>]*	***[3]***

Orbit Structure






Orbit 3
Server Version: 20200619
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Occultation
GS Reacq
Exp. 6
Exp. 7
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec