



16375 - ULLYSES SMC Late B Stars COS and STIS

Cycle: 28, Proposal Category: GO/DD

(Availability Mode: SUPPORTED)

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Proposal 16375 (STScI Edit Number: 1, Created: Wednesday, January 5, 2022 at 11:00:49 AM Eastern Standard Time) - Overview

| <i>Name</i> | <i>Institution</i> | <i>E-Mail</i> |
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VISITS

| <i>Visit</i> | <i>Targets used in Visit</i> | <i>Configurations used in Visit</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 1C | (1) AV200 | COS/FUV | 3 | 05-Jan-2022 11:00:27.0 | yes |
| 1D | (1) AV200 | COS/FUV COS/NUV | 3 | 05-Jan-2022 11:00:29.0 | yes |
| AD | (1) AV200 | COS/FUV COS/NUV | 3 | 05-Jan-2022 11:00:31.0 | yes |
| 1S | (1) AV200 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:32.0 | yes |
| AS | (1) AV200 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:33.0 | yes |
| 2C | (2) AV314 | COS/FUV COS/NUV | 3 | 05-Jan-2022 11:00:35.0 | yes |
| BC | (2) AV314 | COS/FUV COS/NUV | 2 | 05-Jan-2022 11:00:38.0 | yes |
| 2S | (2) AV314 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:38.0 | yes |

| <i>Visit</i> | <i>Targets used in Visit</i> | <i>Configurations used in Visit</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| BS | (2) AV314 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:39.0 | yes |
| 3C | (3) AV343 | COS/FUV COS/NUV | 4 | 05-Jan-2022 11:00:41.0 | yes |
| 3S | (3) AV343 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:42.0 | yes |
| CS | (3) AV343 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:43.0 | yes |
| 4C | (4) AV445 | COS/FUV COS/NUV | 3 | 05-Jan-2022 11:00:44.0 | yes |
| 4S | (4) AV445 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:46.0 | yes |
| 5C | (5) SK179 | COS/FUV | 2 | 05-Jan-2022 11:00:47.0 | yes |
| 5D | (5) SK179 | COS/NUV | 2 | 05-Jan-2022 11:00:48.0 | yes |
| 5S | (5) SK179 WAVE | STIS/CCD STIS/NUV-MAMA | 1 | 05-Jan-2022 11:00:49.0 | yes |

33 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

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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 Å

COS/G130M/c1291: 30 / six-pixel resel at 1150 Å

COS/G160M/c1611: 30 / six-pixel resel at 1590 Å

COS/G185M/c1953: 30 / three-pixel resel at 1860 Å

COS/G185M/c1986: 30 / three-pixel resel at 1980 Å

STIS/E140M/c1425: 20 / two-pixel resel at 1200 Å

STIS/E230M/c1978: 20 / two-pixel resel at 1800 Å

STIS/E230M/c2707: 20 / two-pixel resel at 2800 Å

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 | <p>Proposal 16375, AV200-COS (1C), scheduling</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 1C; AV200;P/COS approved for submission; P/CP 02/11/20 ; intrev: complete ; P/AF 14/07/21 vcheck; Enter targ name & Inst. & Resp. Sci.; AV200 ; COS ; CP vcheck; ETC numbers entered in APT?; Yes vcheck; Any screening violations?; No vcheck; S/N ETC calcs done & documented?; yes vcheck; Field images checked & saved?; yes vcheck; Selected ACQ strategy?; G130M/c1291 dispersed vcheck; Possible ACQ or Sci spoilers?; None vcheck; Field BOT clear?; Yes, with explanation ...</i></p> <p><i>GSC 2 "unknowns" lack GSC color info, but can be easily shown to be safe using Zaritsky catalog.</i></p> <p><i>Brightest U band Zaritsky objects near target:</i></p> <p><i>In PSA macro-aperture:</i></p> <p><i>UBVI = 18.191, 17.199, 16.061, 14.651</i></p> <p><i>UBVI = 18.134, 18.721, 18.685, 18.570 at 9.17" from target PA=205.7D > BOP limiting star</i></p> <p><i>But unreddened O star llimit for all COS modes is much brighter than this: see ETC 1417065, 1417089, 1431784, and 1431798</i></p> <p><i>anything fainter than V=14.5 is safe in PSA</i></p> <p><i>In BOA brightest U band measure in Zaritsky is</i></p> <p><i>UVBI = 14.995, 16.003, 16.069, 16.209 at 18" from target</i></p> <p><i>But anything fainter than V=9.25 is safe for BOA</i></p> <p><i>All Zaritsky stars without U mags are fainter than V=18.2</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; non-found; see figure av200_gsc2_zaritsky.png in box folder</i></p> <p><i>vcheck; Orbit packing finalized?; ...</i></p> <p><i>can fit about 85% of requested c1291 exposure time into a single 3 orbit visit; remaining exposures fit into a second 3 orbit visit with a bit of time to spare. (113% of requested c1611, 104% of c1953, 109% of c1986)</i></p> <p><i>vcheck; Buffer times optimized?; yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; Yes</i></p> <p><i>Allocated COS orbits = 6 do as 3+3</i></p> |
|--------------|--|

Proposal 16375 - AV200-COS (1C) - ULLYSES SMC Late B Stars COS and STIS

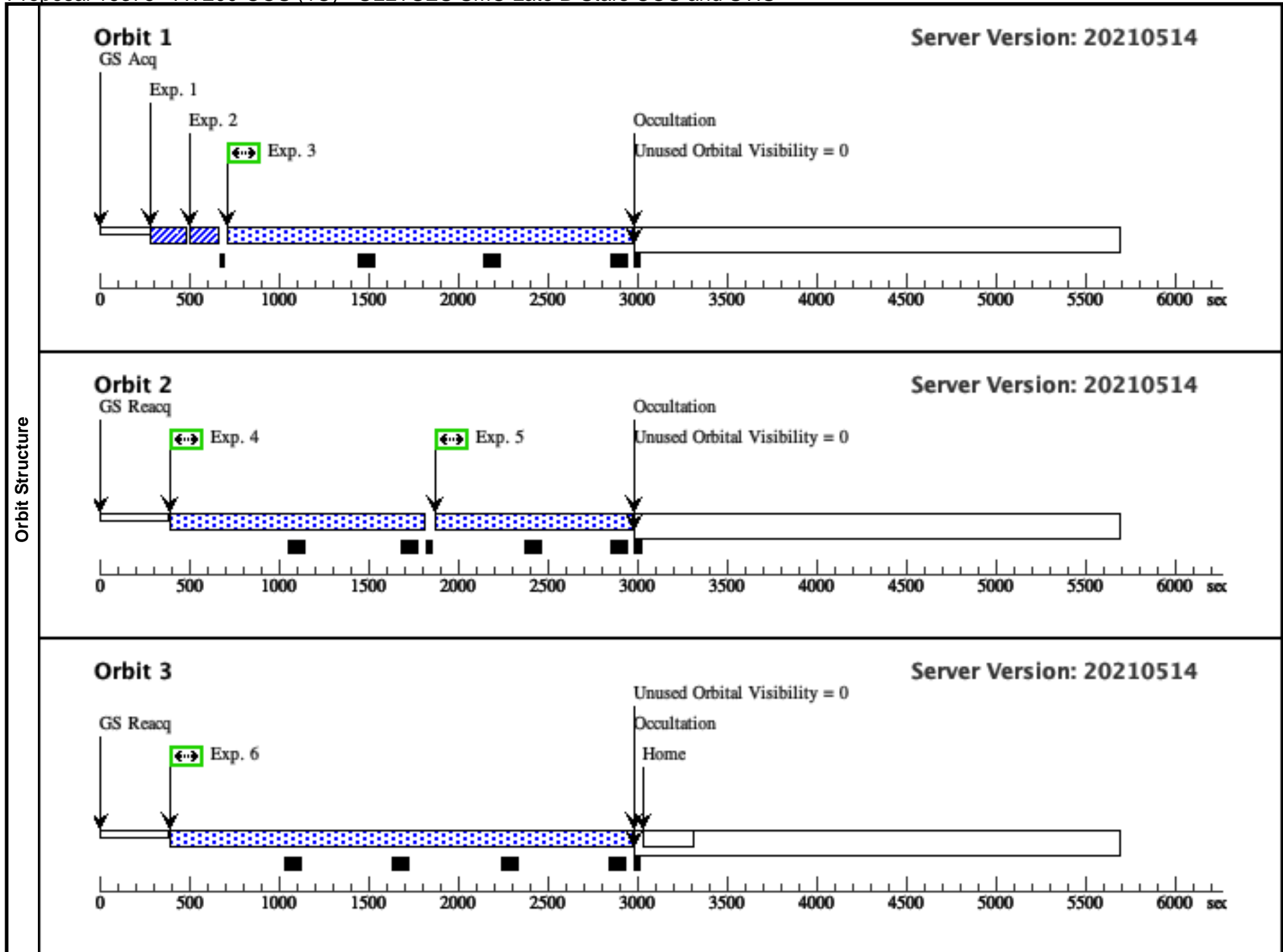
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---------------|---|--|--------------------------|--|-----------------------|
| (1) | AV200 Alt Name1: AZV-200 Alt Name2: SK-69 | RA: 00 58 7.9080 (14.5329500d) Dec: -72 38 30.51 (-72.64181d) Equinox: J2000 | | V=12.17 SpT=B8Ia; E(B-V)=0.08; U=11.7; B=12.2; V=12.2; F1160=1.34e-13; F1360=8.09e-14; F1700=1.02e-13; F2200=9.20e-14 | Reference Frame: ICRS |
| Fixed Targets | <p>Comments: AV200 : AV_200, AzV200, AzV 200 Previous name : AzV200 Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv SIMBAD link (AzV 200): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+200&submit=submit+id SpT = B8Ia COS/G130M/c1291 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam) COS/G160M/c1611 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam) COS/G185M/c1921 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam) COS/G185M/c1953 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam) COS/G185M/c1986 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam) STIS/E140M/c1425 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam) STIS/E230M/c1978 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam) STIS/E230M/c2707 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam) Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:58, v0.4</p> <hr/> <p>tstatus: AV200; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/CP 02/11/20 tcheck: APT/SIMBAD target names: ; AV200 'AV 200' ... aka Sk 69 tcheck; Target info verification status?: Done tcheck; Coordinates & P.M. updated?: Verified as good enough (not bothering with proper motions) tcheck; Adopted SED compared to Observations?: OK, ... New STIS G430L spectrum from Massa taken in October 2020 shows a significantly smaller Balmer jump than our adopted model, but original model mostly good enough fit to IUE if locally normalized in wavelength, but E230M c2707 needs to be normalized at a longer wavelength than 2200.. No easy way to manipulate SED to get great overall fit, although a somewhat warmer Teff with a high E(B-V) helps. But if we trust IUE, not really a problem. Note that STIS TA image shows only 1 obvious star in FOV Category=EXT-STAR Description=[B6-B9.5 III-I] Extended=NO</p> | | | | |

Proposal 16375 - AV200-COS (1C) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit | |
|---|---|--|--------------------------|----------------------------------|---|---------------|--------------------------------|---------------------------------|-------|--|
| Exposures | 1 | ACQ/PEAK (1) AV200 XD (COS.sa.147 0801) | COS/FUV, ACQ/PEAKXD, PSA | G130M 1291 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | | 1.3 Secs (1.3 Secs) [==>] | [1] | |
| | 2 | ACQ/PEAK (1) AV200 D (COS.sa.147 0801) | COS/FUV, ACQ/PEAKD, PSA | G130M 1291 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | | 1.3 Secs (1.3 Secs) [==>] | [1] | |
| | 3 | G130M/129 (1) AV200 1-3 (COS.sp.147 0799) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=70 1; FP-POS=3 | | | 2213 Secs (2213 Secs) [==>] | [1] | |
| | <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam); cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B8Ia --> B8 I</i> <i>SED = AV200_COS_G130M_c1291_sed.fits</i> <i>For exptime=8424.8 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1155.2 cts/s/segment</i> <i>brightest pixel: 0.016 cts/s/pix at 1277.0 A</i> <i>Calculation performed 2020-02-24T17:55:02, v0.4</i></p> | | | | | | | | | |
| | 4 | G130M/129 (1) AV200 1-3 (COS.sp.147 0799) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=62 9; FP-POS=3 | | | 1369 Secs (1369 Secs) [==>] | [2] | |
| <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam); cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B8Ia --> B8 I</i> <i>SED = AV200_COS_G130M_c1291_sed.fits</i> <i>For exptime=8424.8 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1155.2 cts/s/segment</i> <i>brightest pixel: 0.016 cts/s/pix at 1277.0 A</i> <i>Calculation performed 2020-02-24T17:55:02, v0.4</i></p> | | | | | | | | | | |
| 5 | G130M/129 (1) AV200 1-4 (COS.sp.147 0799) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=47 0; FP-POS=4 | | | 1049 Secs (1049 Secs) [==>] | [2] | | |
| <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam); cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B8Ia --> B8 I</i> <i>SED = AV200_COS_G130M_c1291_sed.fits</i> <i>For exptime=8424.8 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1155.2 cts/s/segment</i> <i>brightest pixel: 0.016 cts/s/pix at 1277.0 A</i> <i>Calculation performed 2020-02-24T17:55:02, v0.4</i></p> | | | | | | | | | | |

Proposal 16375 - AV200-COS (1C) - ULLYSES SMC Late B Stars COS and STIS

| | | | | | | |
|---|--|------------------------|-----------------|----------------------------------|--------------------------------|-----|
| 6 | G130M/129 (1) AV200 1-4 (COS.sp.147 0799) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=60 5; FP-POS=4 | 2533 Secs (2533 Secs) [==>] | [3] |
| <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B8Ia --> B8 I</i> <i>SED = AV200_COS_G130M_c1291_sed.fits</i> <i>For exptime=8424.8 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1155.2 cts/s/segment</i> <i>brightest pixel: 0.016 cts/s/pix at 1277.0 A</i> <i>Calculation performed 2020-02-24T17:55:02, v0.4</i></p> | | | | | | |



Orbit Structure

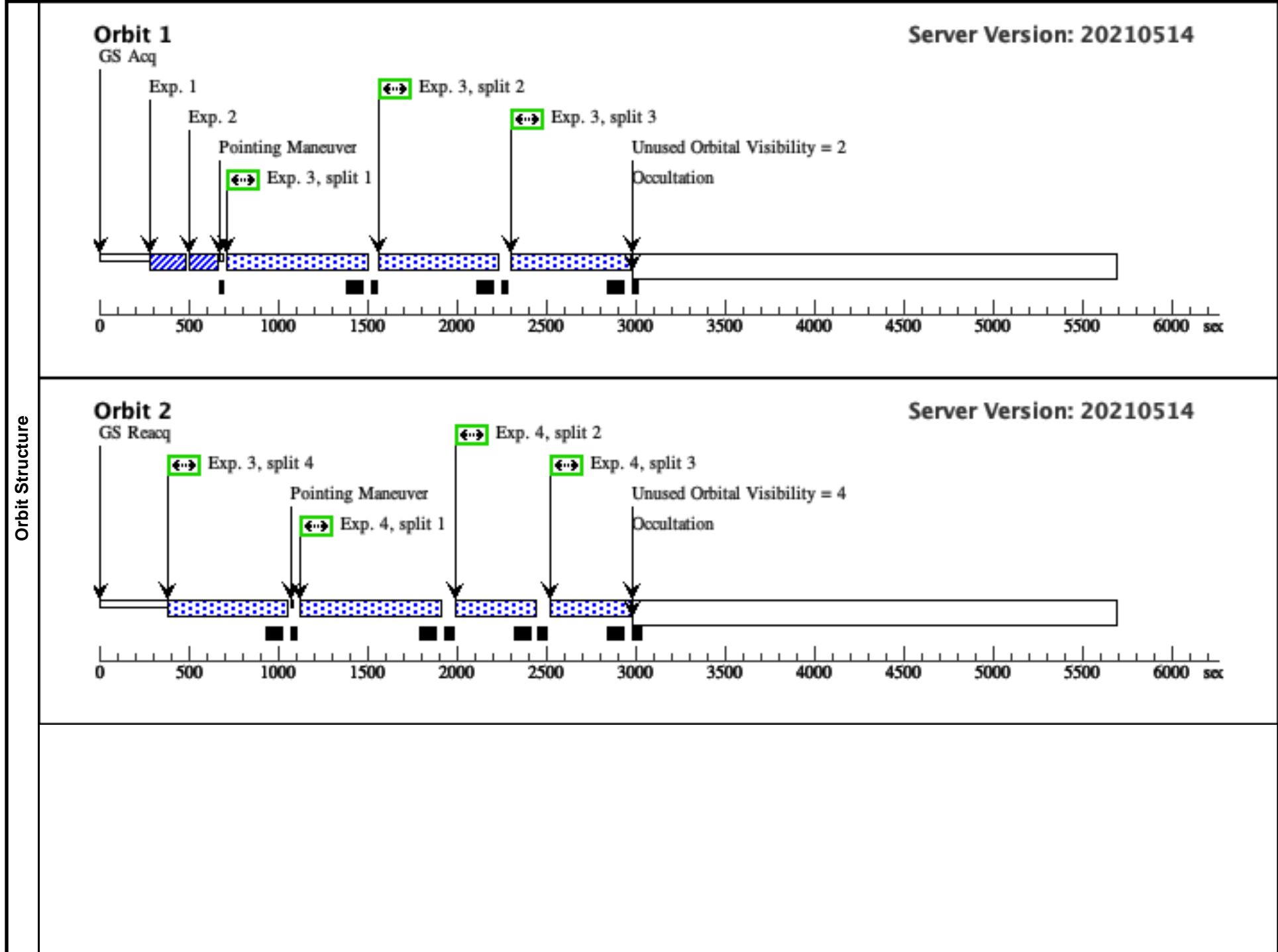
| | |
|--------------|---|
| Visit | <p>Proposal 16375, AV200-COS (1D), failed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 1D; AV200;P/COS approved for submission; P/CP 02/11/20 ; intrev: complete ; P/AF 14/07/21 vcheck; Enter targ name & Inst. & Resp. Sci.; AV200 ; COS ; CP vcheck; ETC numbers entered in APT?; Yes vcheck; Any screening violations?; No vcheck; S/N ETC calcs done & documented?; yes vcheck; Field images checked & saved?; yes vcheck; Selected ACQ strategy?; G130M/c1291 dispersed vcheck; Possible ACQ or Sci spoilers?; None vcheck; Field BOT clear?; Yes, with explanation ...</i></p> <p><i>GSC 2 "unknowns" lack GSC color info, but can be easily shown to be safe using Zaritsky catalog.</i></p> <p><i>Brightest U band Zaritsky objects near target:</i></p> <p><i>In PSA macro-aperture:</i></p> <p><i>UBVI = 18.191, 17.199, 16.061, 14.651</i></p> <p><i>UBVI = 18.134, 18.721, 18.685, 18.570 at 9.17" from target PA=205.7D > BOP limiting star</i></p> <p><i>But unreddened O star llimit for all COS modes is much brighter than this: see ETC 1417065, 1417089, 1431784, and 1431798</i></p> <p><i>anything fainter than V=14.5 is safe in PSA</i></p> <p><i>In BOA brightest U band measure in Zaritsky is</i></p> <p><i>UVBI = 14.995, 16.003, 16.069, 16.209 at 18" from target</i></p> <p><i>But anything fainter than V=9.25 is safe for BOA</i></p> <p><i>All Zaritsky stars without U mags are fainter than V=18.2</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; non-found; see figure av200_gsc2_zaritsky.png in box folder</i></p> <p><i>vcheck; Orbit packing finalized?; ...</i></p> <p><i>can fit about 85% of requested c1291 into a single 3 orbit visit; remaining exposures fit into a second 3 orbit visit with a bit of time to spare. (113% of requested c1611, 104% of c1953, 109% of c1986)</i></p> <p><i>vcheck; Buffer times optimized?; yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; Yes</i></p> <p><i>Allocated COS orbits = 6 do as 3+3</i></p> |
|--------------|---|

Proposal 16375 - AV200-COS (1D) - ULLYSES SMC Late B Stars COS and STIS

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---------------|---|--|--------------------------|--|-----------------------|
| (1) | AV200 Alt Name1: AZV-200 Alt Name2: SK-69 | RA: 00 58 7.9080 (14.5329500d) Dec: -72 38 30.51 (-72.64181d) Equinox: J2000 | | V=12.17 SpT=B8Ia; E(B-V)=0.08; U=11.7; B=12.2; V=12.2; F1160=1.34e-13; F1360=8.09e-14; F1700=1.02e-13; F2200=9.20e-14 | Reference Frame: ICRS |
| Fixed Targets | <p>Comments: AV200 : AV_200, AzV200, AzV 200 Previous name : AzV200 Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv SIMBAD link (AzV 200): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+200&submit=submit+id SpT = B8Ia COS/G130M/c1291 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam) COS/G160M/c1611 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam) COS/G185M/c1921 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam) COS/G185M/c1953 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam) COS/G185M/c1986 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam) STIS/E140M/c1425 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam) STIS/E230M/c1978 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam) STIS/E230M/c2707 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam) Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:58, v0.4</p> <hr/> <p>tstatus: AV200; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/CP 02/11/20 tcheck; APT/SIMBAD target names: ; AV200 'AV 200' ... aka Sk 69 tcheck; Target info verification status?: Done tcheck; Coordinates & P.M. updated?: Verified as good enough (not bothering with proper motions) tcheck; Adopted SED compared to Observations?: OK, ... New STIS G430L spectrum from Massa taken in October 2020 shows a significantly smaller Balmer jump than our adopted model, but original model mostly good enough fit to IUE if locally normalized in wavelength, but E230M c2707 needs to be normalized at a longer wavelength than 2200.. No easy way to manipulate SED to get great overall fit, although a somewhat warmer Teff with a high E(B-V) helps. But if we trust IUE, not really a problem. Note that STIS TA image shows only 1 obvious star in FOV Category=EXT-STAR Description=[B6-B9.5 III-I] Extended=NO</p> | | | | |

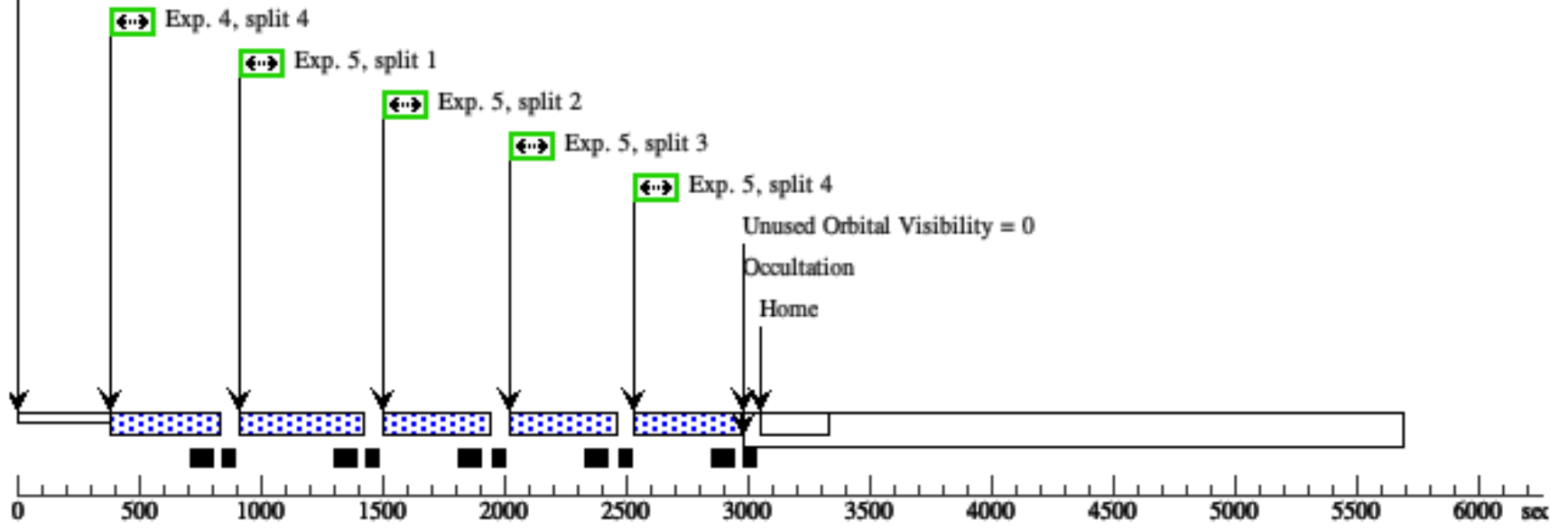
Proposal 16375 - AV200-COS (1D) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit | |
|---|--|--|------------------------|--------------------------|------------------------------------|---|--|--|------------|--|
| Exposures | 1 | ACQ/PEAK XD (COS.sa.147 0801) | (1) AV200 | COS/FUV, ACQ/PEAKXD, PSA | G130M 1291 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | 1.3 Secs (1.3 Secs) [==>] | [1] | |
| | 2 | ACQ/PEAK D (COS.sa.147 0801) | (1) AV200 | COS/FUV, ACQ/PEAKD, PSA | G130M 1291 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | 1.3 Secs (1.3 Secs) [==>] | [1] | |
| | 3 | G160M/161 1 (COS.sp.147 0808) | (1) AV200 | COS/FUV, TIME-TAG, PSA | G160M 1611 A | BUFFER-TIME=51 1; FP-POS=ALL | | 618 Secs (2472 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [1] [2] | |
| | <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B8Ia --> B8 I SED = AV200_COS_G160M_c1611_sed.fits For exptime=2196.0 s, spectral region: 1590.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1329.0 cts/s/segment brightest pixel: 0.019 cts/s/pix at 1447.0 A Calculation performed 2020-02-24T17:55:04, v0.4</p> | | | | | | | | | |
| | 4 | G185M/195 3 (COS.sp.147 0829) | (1) AV200 | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=32 0; FP-POS=ALL | | 430 Secs (1720 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [2] [3] | |
| <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305)</i> From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B8Ia --> B8 I SED = AV200_COS_G185M_c1953_sed.fits For exptime=1650.8 s, spectral region: 1860.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1554.5 cts/s/segment brightest pixel: 0.111 cts/s/pix at 1971.0 A Calculation performed 2020-02-24T17:55:05, v0.4</p> | | | | | | | | | | |
| 5 | G185M/198 6 (COS.sp.147 0830) | (1) AV200 | COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=31 0; FP-POS=ALL | | 420 Secs (1680 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [3] | | |
| <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam); cos,nuv,g185m,c1986,psa,mjd#59305)</i> From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B8Ia --> B8 I SED = AV200_COS_G185M_c1986_sed.fits For exptime=1544.4 s, spectral region: 1980.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1499.9 cts/s/segment brightest pixel: 0.099 cts/s/pix at 1976.0 A Calculation performed 2020-02-24T17:55:06, v0.4</p> | | | | | | | | | | |



Orbit 3

GS Reacq



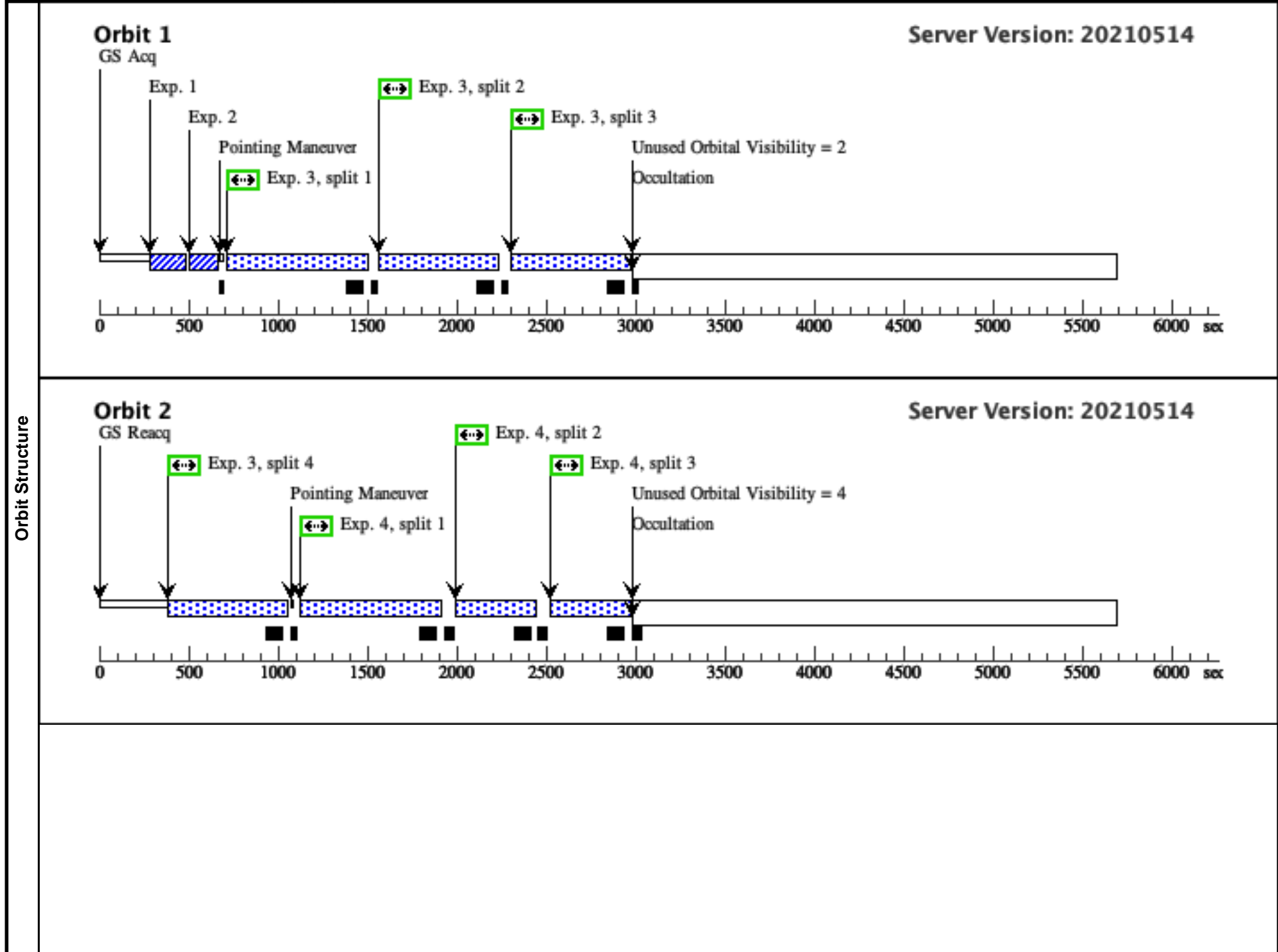
| | |
|--------------|--|
| Visit | <p>Proposal 16375, AV200-COS (AD), implementation</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 1D; AV200; P/COS approved for submission; P/CP 02/11/20 ; intrev: complete ; P/AF 14/07/21</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; AV200 ; COS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; yes</i></p> <p><i>vcheck; Field images checked & saved?; yes</i></p> <p><i>vcheck; Selected ACQ strategy?; G130M/c1291 dispersed</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; None</i></p> <p><i>vcheck; Field BOT clear?; Yes, with explanation ...</i></p> <p><i>GSC 2 "unknowns" lack GSC color info, but can be easily shown to be safe using Zaritsky catalog.</i></p> <p><i>Brightest U band Zaritsky objects near target:</i></p> <p><i>In PSA macro-aperture:</i></p> <p><i>UBVI = 18.191, 17.199, 16.061, 14.651</i></p> <p><i>UBVI = 18.134, 18.721, 18.685, 18.570 at 9.17" from target PA=205.7D > BOP limiting star</i></p> <p><i>But unreddened O star llimit for all COS modes is much brighter than this: see ETC 1417065, 1417089, 1431784, and 1431798</i></p> <p><i>anything fainter than V=14.5 is safe in PSA</i></p> <p><i>In BOA brightest U band measure in Zaritsky is</i></p> <p><i>UVBI = 14.995, 16.003, 16.069, 16.209 at 18" from target</i></p> <p><i>But anything fainter than V=9.25 is safe for BOA</i></p> <p><i>All Zaritsky stars without U mags are fainter than V=18.2</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; non-found; see figure av200_gsc2_zaritsky.png in box folder</i></p> <p><i>vcheck; Orbit packing finalized?; ...</i></p> <p><i>can fit about 85% of requested c1291 into a single 3 orbit visit; remaining exposures fit into a second 3 orbit visit with a bit of time to spare. (113% of requested c1611, 104% of c1953, 109% of c1986)</i></p> <p><i>vcheck; Buffer times optimized?; yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; Yes</i></p> <p><i>Allocated COS orbits = 6 do as 3+3</i></p> |
|--------------|--|

Proposal 16375 - AV200-COS (AD) - ULLYSES SMC Late B Stars COS and STIS

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---------------|--|--|--------------------------|--|-----------------------|
| (1) | AV200 Alt Name1: AZV-200 Alt Name2: SK-69 | RA: 00 58 7.9080 (14.5329500d) Dec: -72 38 30.51 (-72.64181d) Equinox: J2000 | | V=12.17 SpT=B8Ia; E(B-V)=0.08; U=11.7; B=12.2; V=12.2; F1160=1.34e-13; F1360=8.09e-14; F1700=1.02e-13; F2200=9.20e-14 | Reference Frame: ICRS |
| Fixed Targets | <p><i>Comments: AV200 : AV_200, AzV200, AzV 200</i> <i>Previous name : AzV200</i> <i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>SIMBAD link (AzV 200): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+200&submit=submit+id</i> <i>SpT = B8Ia</i> <i>COS/G130M/c1291 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam)</i> <i>COS/G160M/c1611 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam)</i> <i>COS/G185M/c1921 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam)</i> <i>COS/G185M/c1953 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam)</i> <i>COS/G185M/c1986 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam)</i> <i>STIS/E140M/c1425 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam)</i> <i>STIS/E230M/c1978 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam)</i> <i>STIS/E230M/c2707 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam)</i> <i>Coordinate pedigree: Gaia</i> <i>Calculation performed 2020-02-24T17:54:58, v0.4</i></p> <hr/> <p><i>tstatus: AV200; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/CP 02/11/20</i> <i>tcheck: APT/SIMBAD target names: ; AV200 'AV 200' ...</i> <i>aka Sk 69</i> <i>tcheck; Target info verification status?: Done</i> <i>tcheck; Coordinates & P.M. updated?: Verified as good enough (not bothering with proper motions)</i> <i>tcheck; Adopted SED compared to Observations?: OK, ...</i> <i>New STIS G430L spectrum from Massa taken in October 2020 shows a significantly smaller Balmer jump than our adopted model, but original model mostly good enough fit to IUE if locally normalized in wavelength, but E230M c2707 needs to be normalized at a longer wavelength than 2200.. No easy way to manipulate SED to get great overall fit, although a somewhat warmer Teff with a high E(B-V) helps. But if we trust IUE, not really a problem. Note that STIS TA image shows only 1 obvious star in FOV</i> <i>Category=EXT-STAR</i> <i>Description=[B6-B9.5 III-I]</i> <i>Extended=NO</i></p> | | | | |

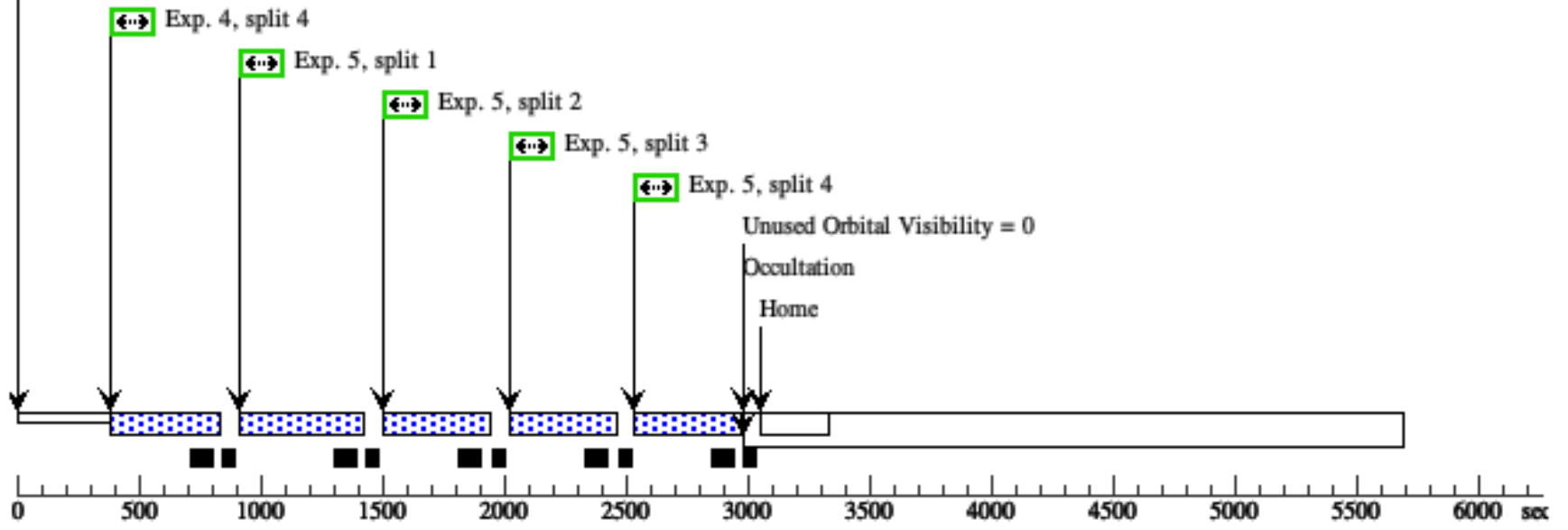
Proposal 16375 - AV200-COS (AD) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit | |
|--|--|--|---------------------------------------|------------------------------------|---|---------------|--|--|------------|--|
| Exposures | 1 | ACQ/PEAK XD (COS.sa.147 0801) | (1) AV200 COS/FUV, ACQ/PEAKXD, PSA | G130M 1291 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | | 1.3 Secs (1.3 Secs) [==>] | [1] | |
| | 2 | ACQ/PEAK D (COS.sa.147 0801) | (1) AV200 COS/FUV, ACQ/PEAKD, PSA | G130M 1291 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | | 1.3 Secs (1.3 Secs) [==>] | [1] | |
| | 3 | G160M/161 1 (COS.sp.147 0808) | (1) AV200 COS/FUV, TIME-TAG, PSA | G160M 1611 A | BUFFER-TIME=51 1; FP-POS=ALL | | | 618 Secs (2472 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [1] [2] | |
| | <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B8Ia --> B8 I</i> <i>SED = AV200_COS_G160M_c1611_sed.fits</i> <i>For exptime=2196.0 s, spectral region:</i> <i>1590.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1329.0 cts/s/segment</i> <i>brightest pixel: 0.019 cts/s/pix at 1447.0 A</i> <i>Calculation performed 2020-02-24T17:55:04, v0.4</i></p> | | | | | | | | | |
| | 4 | G185M/195 3 (COS.sp.147 0829) | (1) AV200 COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=32 0; FP-POS=ALL | | | 430 Secs (1720 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [2] [3] | |
| <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B8Ia --> B8 I</i> <i>SED = AV200_COS_G185M_c1953_sed.fits</i> <i>For exptime=1650.8 s, spectral region:</i> <i>1860.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1554.5 cts/s/segment</i> <i>brightest pixel: 0.111 cts/s/pix at 1971.0 A</i> <i>Calculation performed 2020-02-24T17:55:05, v0.4</i></p> | | | | | | | | | | |
| 5 | G185M/198 6 (COS.sp.147 0830) | (1) AV200 COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=31 0; FP-POS=ALL | | | 420 Secs (1680 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [3] | | |
| <p><i>Comments: rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam); cos,nuv,g185m,c1986,psa,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B8Ia --> B8 I</i> <i>SED = AV200_COS_G185M_c1986_sed.fits</i> <i>For exptime=1544.4 s, spectral region:</i> <i>1980.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1499.9 cts/s/segment</i> <i>brightest pixel: 0.099 cts/s/pix at 1976.0 A</i> <i>Calculation performed 2020-02-24T17:55:06, v0.4</i></p> | | | | | | | | | | |



Orbit 3

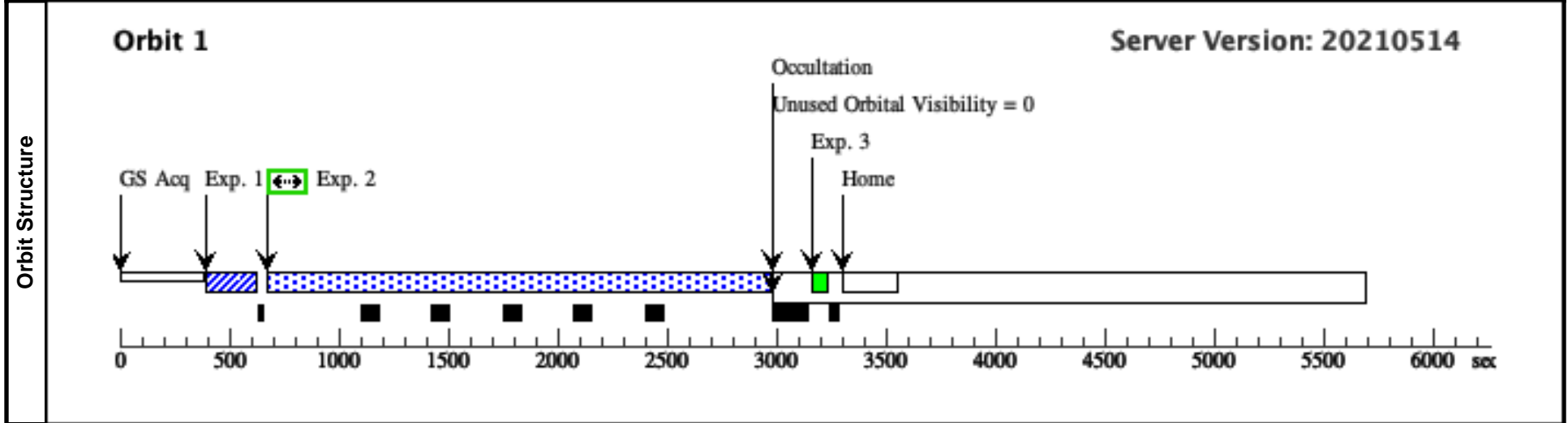
GS Reacq



| Visit | <p>Proposal 16375, AV200-STIS (1S), failed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: STIS/NUV-MAMA, STIS/CCD</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 1S; AV200; S/STIS approved for submission; S/CP 02/11/20 ; intrev: complete ; P/AF 14/07/21</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; AV200 ; STIS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; no</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; yes</i></p> <p><i>vcheck; Field images checked & saved?; yes - see COS</i></p> <p><i>vcheck; Selected ACQ strategy?; F28X50LP, 0.5s should yield S/N~125</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; none (previous G430L acq shows no other objects in 5"x5" acq box)</i></p> <p><i>vcheck; Field BOT clear?; yes; BOT shows target as unknown</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; clear -- Gaia DR3 has nothing else with G<18 within 5"</i></p> <p><i>vcheck; Orbit packing finalized?; Yes</i></p> <p><i>vcheck; Buffer times optimized?; Yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; yes</i></p> <p><i>Allocated STIS orbits = 1</i></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|--------------------------------|--------------------------|---|-----------------------|---|------|--------------------|--------------------------|--------|---------------|-----|-------|--------------------------------|--|---------|-----------------------|--|--------------------|--------------------------------|--|---|--|--|------------------|----------------|--|--|
| | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>AV200</td> <td>RA: 00 58 7.9080 (14.5329500d)</td> <td></td> <td>V=12.17</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: AZV-200</td> <td>Dec: -72 38 30.51 (-72.64181d)</td> <td></td> <td>SpT=B8Ia; E(B-V)=0.08; U=11.7; B=12.2; V=12.2; F1160=1.34e-13; F1360=8.09e-14; F1700=1.02e-13; F2200=9.20e-14</td> <td></td> </tr> <tr> <td></td> <td>Alt Name2: SK-69</td> <td>Equinox: J2000</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><i>Comments: AV200 : AV_200, AzV200, AzV 200</i></p> <p><i>Previous name : AzV200</i></p> <p><i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>SIMBAD link (AzV 200): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+200&submit=submit+id</i></p> <p><i>SpT = B8Ia</i></p> <p><i>COS/G130M/c1291 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam)</i></p> <p><i>COS/G160M/c1611 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam)</i></p> <p><i>COS/G185M/c1921 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam)</i></p> <p><i>COS/G185M/c1953 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1700 +- 5.0A flux=1e-13 Flam)</i></p> <p><i>COS/G185M/c1986 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam)</i></p> <p><i>STIS/E140M/c1425 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux1360 +- 30.0A flux=8.1e-14 Flam)</i></p> <p><i>STIS/E230M/c1978 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam)</i></p> <p><i>STIS/E230M/c2707 : rn-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +- 5.0A flux=9.2e-14 Flam)</i></p> <p><i>Coordinate pedigree: Gaia</i></p> <p><i>Calculation performed 2020-02-24T17:54:58, v0.4</i></p> <hr/> <p><i>tstatus; AV200; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/CP 02/11/20</i></p> <p><i>tcheck; APT/SIMBAD target names: ; AV200 'AV 200' ...</i></p> <p><i>aka Sk 69</i></p> <p><i>tcheck; Target info verification status?; Done</i></p> <p><i>tcheck; Coordinates & P.M. updated?; Verified as good enough (not bothering with proper motions)</i></p> <p><i>tcheck; Adopted SED compared to Observations?; OK, ...</i></p> <p><i>New STIS G430L spectrum from Massa taken in October 2020 shows a significantly smaller Balmer jump than our adopted model, but original model mostly good enough fit to IUE if locally normalized in wavelength, but E230M c2707 needs to be normalized at a longer wavelength than 2200.. No easy way to manipulate SED to get great overall fit, although a somewhat warmer Teff with a high E(B-V) helps. But if we trust IUE, not really a problem. Note that STIS TA image shows only 1 obvious star in FOV</i></p> <p><i>Category=EXT-STAR</i></p> <p><i>Description=[B6-B9.5 III-I]</i></p> <p><i>Extended=NO</i></p> | | | | | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | (1) | AV200 | RA: 00 58 7.9080 (14.5329500d) | | V=12.17 | Reference Frame: ICRS | | Alt Name1: AZV-200 | Dec: -72 38 30.51 (-72.64181d) | | SpT=B8Ia; E(B-V)=0.08; U=11.7; B=12.2; V=12.2; F1160=1.34e-13; F1360=8.09e-14; F1700=1.02e-13; F2200=9.20e-14 | | | Alt Name2: SK-69 | Equinox: J2000 | | |
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | | | | | | | | | | | | | | | | | | | | |
| (1) | AV200 | RA: 00 58 7.9080 (14.5329500d) | | V=12.17 | Reference Frame: ICRS | | | | | | | | | | | | | | | | | | | | | | | |
| | Alt Name1: AZV-200 | Dec: -72 38 30.51 (-72.64181d) | | SpT=B8Ia; E(B-V)=0.08; U=11.7; B=12.2; V=12.2; F1160=1.34e-13; F1360=8.09e-14; F1700=1.02e-13; F2200=9.20e-14 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Alt Name2: SK-69 | Equinox: J2000 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fixed Targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Proposal 16375 - AV200-STIS (1S) - ULLYSES SMC Late B Stars COS and STIS

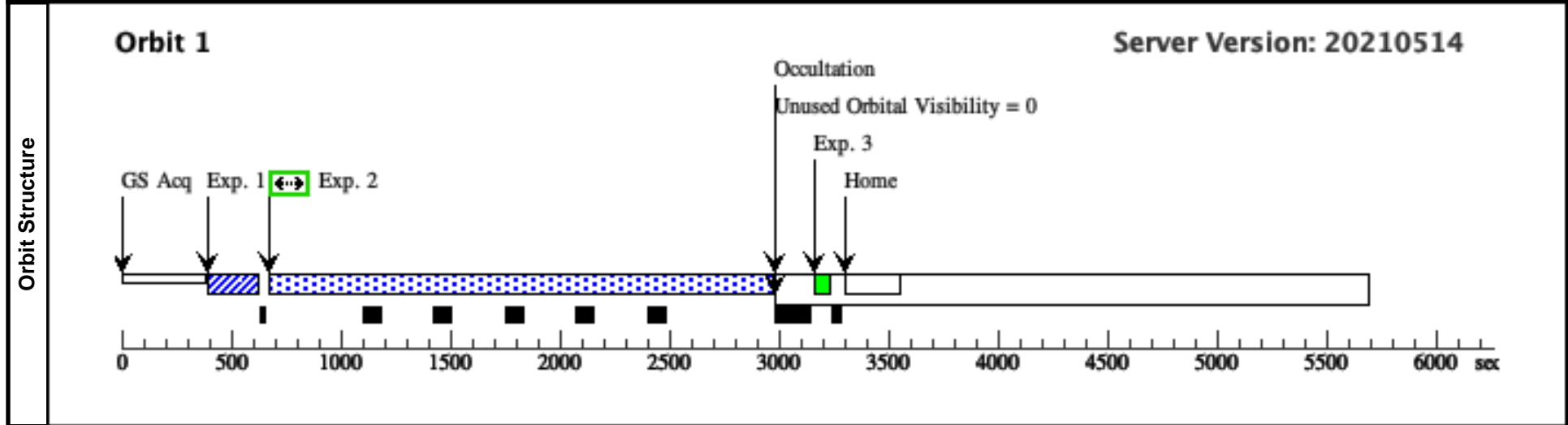
| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|--|--|-----------|----------------------------------|-----------------|------------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.151 7441) | (1) AV200 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| <i>Comments: See also exposure oec696jbq from proposal 16230</i> | | | | | | | | | |
| 2 | E230M/270 7 (STIS.sp.14 70826) | (1) AV200 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=32 5 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <p><i>Comments: The model for the COS c1291 agrees better with the IUE flux in this wavelength range than does the 2200 Angstrom normalization intended for this grating.</i></p> <p><i>m-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +/- 5.0A flux=9.2e-14 Flam); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305</i></p> <p><i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>Spectral type: B8Ia --> B8 I</i></p> <p><i>SED = AV200_STIS_E230M_c2707_sed.fits</i></p> <p><i>For exptime=2118.4 s, spectral region:</i></p> <p><i>2800.0 +/- 0.5 A achieves SNR=20.0/resel</i></p> <p><i>global countrate (brightest segment): 4324.1 cts/s/segment</i></p> <p><i>brightest pixel: 0.054 cts/s/pix at 2647.5 A</i></p> <p><i>Calculation performed 2020-02-24T17:55:10, v0.4</i></p> <p><i>ETC calculation using IUE spectrum yields similar results -- 0.076/4.9k cts/s, S/N~25 near 2800A (1517446)</i></p> | | | | | | | | | |
| 3 | E230M/270 7 WAVECAL (STIS.sp.14 70826) | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |



| Visit | <p>Proposal 16375, AV200-STIS (AS), implementation</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: STIS/NUV-MAMA, STIS/CCD</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; IS; AV200; S/STIS approved for submission; S/CP 02/11/20 ; intrev: complete ; P/AF 14/07/21</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; AV200 ; STIS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; no</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; yes</i></p> <p><i>vcheck; Field images checked & saved?; yes - see COS</i></p> <p><i>vcheck; Selected ACQ strategy?; F28X50LP, 0.5s should yield S/N~125</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; none (previous G430L acq shows no other objects in 5"x5" acq box)</i></p> <p><i>vcheck; Field BOT clear?; yes; BOT shows target as unknown</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; clear -- Gaia DR3 has nothing else with G<18 within 5"</i></p> <p><i>vcheck; Orbit packing finalized?; Yes</i></p> <p><i>vcheck; Buffer times optimized?; Yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; yes</i></p> <p><i>Allocated STIS orbits = 1</i></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|--------------------------------|--------------------------|---|-----------------------|---|------|--------------------|--------------------------|--------|---------------|-----|-------|--------------------------------|--|---------|-----------------------|--|--------------------|--------------------------------|--|---|--|--|------------------|----------------|--|--|
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| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | | | | | | | | | | | | | | | | | | | | |
| (1) | AV200 | RA: 00 58 7.9080 (14.5329500d) | | V=12.17 | Reference Frame: ICRS | | | | | | | | | | | | | | | | | | | | | | | |
| | Alt Name1: AZV-200 | Dec: -72 38 30.51 (-72.64181d) | | SpT=B8Ia; E(B-V)=0.08; U=11.7; B=12.2; V=12.2; F1160=1.34 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Alt Name2: SK-69 | Equinox: J2000 | | e-13; F1360=8.09e-14; F1700=1.02e-13; F2200=9.20e-14 | | | | | | | | | | | | | | | | | | | | | | | | |
| Fixed Targets | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Proposal 16375 - AV200-STIS (AS) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|--|-----------|----------------------------------|-----------------|------------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.151 7441) | (1) AV200 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| <i>Comments: See also exposure oec696jbq from proposal 16230</i> | | | | | | | | | |
| 2 | E230M/270 7 (STIS.sp.14 70826) | (1) AV200 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=32 5 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <i>Comments: The model for the COS c1291 agrees better with the IUE flux in this wavelength range than does the 2200 Angstrom normalization intended for this grating.</i> | | | | | | | | | |
| <i>m-max(ck04models(B8I,Teff=11278,metallicity=0.004,logG=2.26) (extinction smcbar=0.080), flux2200 +/- 5.0A flux=9.2e-14 Flam); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305</i> | | | | | | | | | |
| <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> | | | | | | | | | |
| <i>Spectral type: B8Ia --> B8 I</i> | | | | | | | | | |
| <i>SED = AV200_STIS_E230M_c2707_sed.fits</i> | | | | | | | | | |
| <i>For exptime=2118.4 s, spectral region:</i> | | | | | | | | | |
| <i>2800.0 +/- 0.5 A achieves SNR=20.0/resel</i> | | | | | | | | | |
| <i>global countrate (brightest segment): 4324.1 cts/s/segment</i> | | | | | | | | | |
| <i>brightest pixel: 0.054 cts/s/pix at 2647.5 A</i> | | | | | | | | | |
| <i>Calculation performed 2020-02-24T17:55:10, v0.4</i> | | | | | | | | | |
| <i>ETC calculation using IUE spectrum yields similar results -- 0.076/4.9k cts/s, S/N~25 near 2800A (1517446)</i> | | | | | | | | | |
| 3 | E230M/270 7 WAVECAL (STIS.sp.14 70826) | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |



Proposal 16375, AV314-COS (2C), failed

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 2C; AV314; P/COS approved for submission; P/CP 03/11/20 ; intrev: complete ; P/AF 14/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; AV314 ; COS ; CP
vcheck; ETC numbers entered in APT?; Done
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; Do dispersed G160M c1611 exposure to optimize efficiency and orbit packing
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes ...
3 unknowns flagged; one is target, the other (S0XG331178) is not visible in GSC2 image and has N-plate mag=17.93 (no F or J plate mag so apparently a very faint, very red object)
The third is a relatively bright star that is marked as both safe and unknown (not a point source) for c1291, but Zaritsky gives UBV1=13.19, 14.362, 14.543, 14.924, and an unreddened O star with U=13.19 is safe (COS.sp.1470942)
All other stars (except for the target) in macro-aperture are fainter than this one
vcheck; Visual BOT check for stars not in catalog?; None found
vcheck; Orbit packing finalized?; yes ...
achieved 90% of requested c1291, 88% of c1611, 96% of c1953, 98% of c1986.
1st two FP-POS of c1953 are a bit shorter than the last two positions (311s vs 366s per FP-POS)
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
 Allocated COS orbits = 3

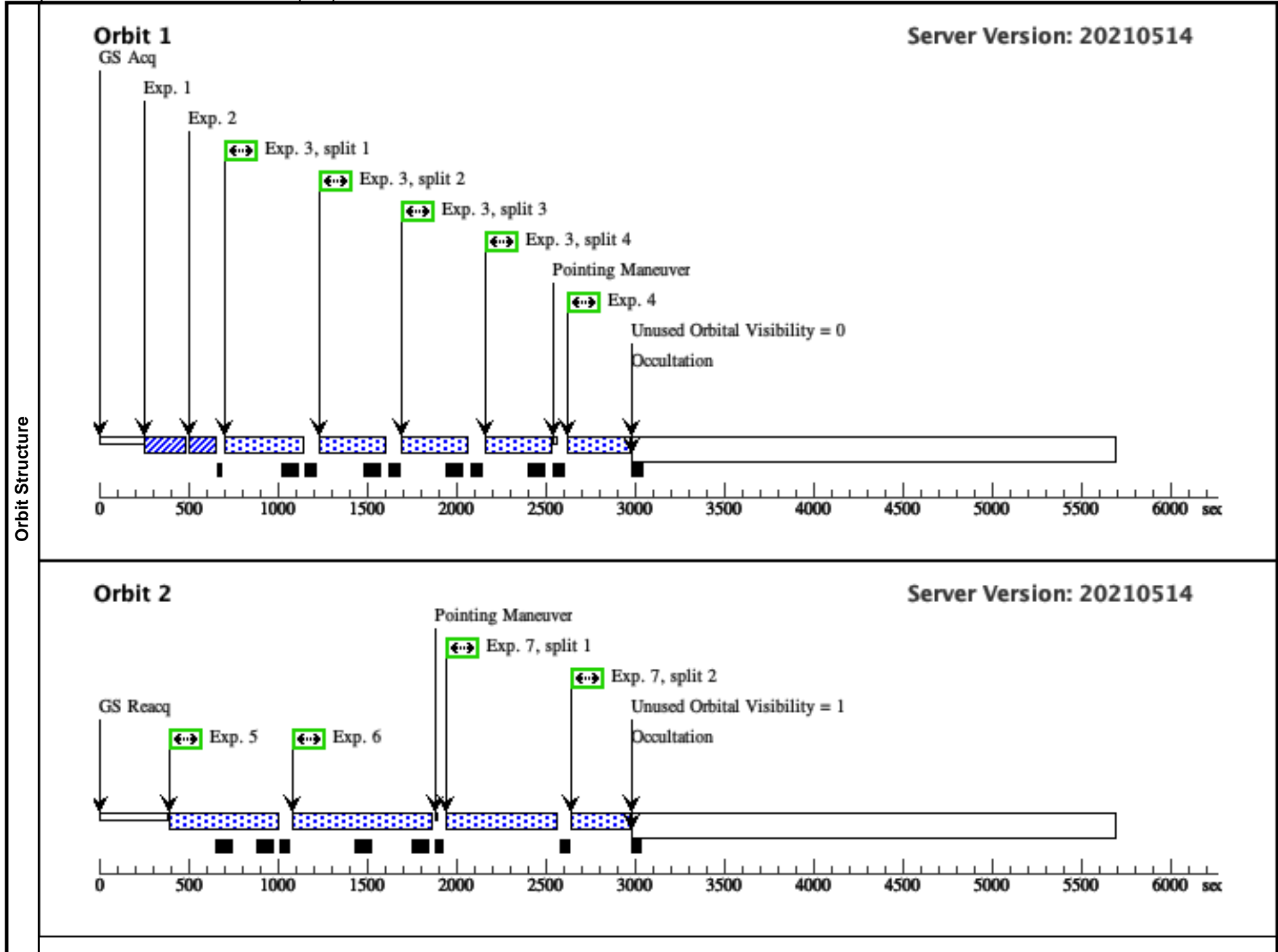
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|--|----------------------------|---------------------------------|--------------------------|--|-----------------------|
| (2) | AV314 | RA: 01 02 48.5034 (15.7020975d) | | V=12.87 | Reference Frame: ICRS |
| | Alt Name1: AZV314 | Dec: -72 16 45.41 (-72.27928d) | | SpT=B5Iab; E(B-V)=0.00; U=1 | |
| | Alt Name2: M2002-SMC-54568 | Equinox: J2000 | | ; F1160=1.85e-13; F1360=1.78e-13; F1700=1.48e-13; F2200=1.03e-13 | |
| <p><i>Comments: AV314 : AV_314, AzV314, AzV 314</i> <i>Previous name : AzV314</i> <i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>SIMBAD link (AzV 314): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+314&submit=submit+id</i> <i>SpT = B5Iab</i> <i>COS/G130M/c1291 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i> <i>COS/G160M/c1611 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> <i>COS/G185M/c1921 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> <i>COS/G185M/c1953 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> <i>COS/G185M/c1986 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> <i>STIS/E140M/c1425 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i> <i>STIS/E230M/c1978 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> <i>STIS/E230M/c2707 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:08, v0.4</p> <hr/> <p><i>tstatus; AV314; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/DW 22/05/21</i> <i>tcheck; APT/SIMBAD target names: ; AV314 'AV 314'</i> <i>tcheck; Target info verification status?; good</i> <i>tcheck; Coordinates & P.M. updated?; Verified (not including proper motions)</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> <i>For STIS/E230M, new G430L spectrum agrees well with IUE, B, V (but U seems too bright) -- model slightly overestimates Balmer jump -- SED2707 agrees reasonably well with IUE over most of E230H/2707 range - G430L acq has only target in acq box</i> Category=EXT-STAR Description=[B3-B5 III-I] Extended=NO</p> | | | | | |

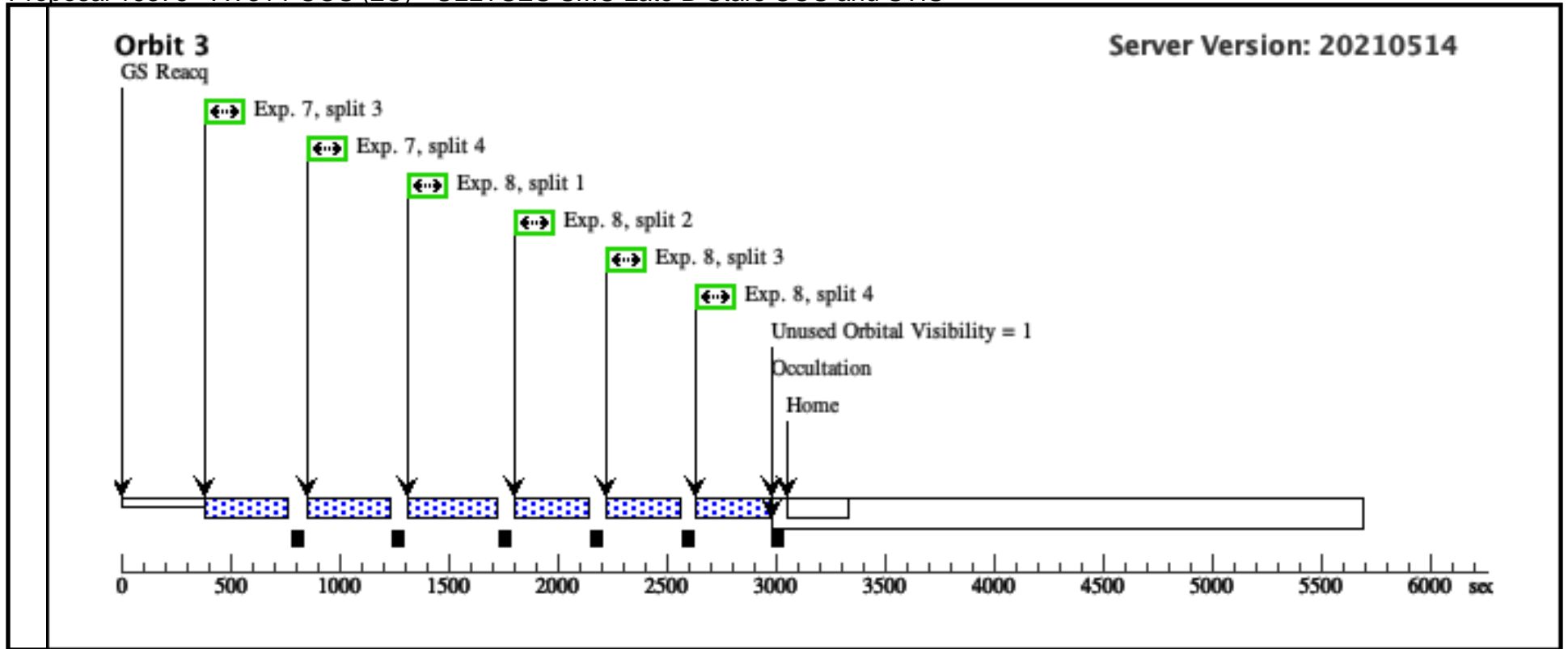
Proposal 16375 - AV314-COS (2C) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|--|--------------------------|----------------------------------|---|---------------|------------------------------|--|-------|
| Exposures | 1 | ACQ/PEAK (2) AV314 XD (COS.sa.147 0919) | COS/FUV, ACQ/PEAKXD, PSA | G160M 1611 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | | 1 Secs (1 Secs) [==>] | [1] |
| | <p><i>Comments: c1291 needs 1.3s (COS.sa.1470835) c1611 needs 1.0s (COS.sa.1470836)</i></p> | | | | | | | | |
| | 2 | ACQ/PEAK (2) AV314 D (COS.sa.147 0919) | COS/FUV, ACQ/PEAKD, PSA | G160M 1611 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | | 1 Secs (1 Secs) [==>] | [1] |
| | 3 | G160M/161 (2) AV314 1 (COS.sp.147 0924) | COS/FUV, TIME-TAG, PSA | G160M 1611 A | BUFFER-TIME=21 2; FP-POS=ALL | | | 320 Secs (1280 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [1] |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam); cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_COS_G160M_c1611_sed.fits</i> <i>For exptime=1457.7 s, spectral region:</i> <i>1590.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 2260.6 cts/s/segment</i> <i>brightest pixel: 0.034 cts/s/pix at 1447.0 A</i> <i>Calculation performed 2020-02-24T17:54:15, v0.4</i></p> | | | | | | | | | |
| 4 | G130M/129 (2) AV314 1-3 (COS.sp.147 0923) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=37 5; FP-POS=3 | | | 169 Secs (169 Secs) [==>] | [1] | |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam); cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_COS_G130M_c1291_sed.fits</i> <i>For exptime=1648.3 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 2195.8 cts/s/segment</i> <i>brightest pixel: 0.042 cts/s/pix at 1255.0 A</i> <i>Calculation performed 2020-02-24T17:54:13, v0.4</i></p> | | | | | | | | | |
| 5 | G130M/129 (2) AV314 1-3 (COS.sp.147 0923) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=23 1; FP-POS=3 | | | 563 Secs (563 Secs) [==>] | [2] | |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam); cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_COS_G130M_c1291_sed.fits</i> <i>For exptime=1648.3 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 2195.8 cts/s/segment</i> <i>brightest pixel: 0.042 cts/s/pix at 1255.0 A</i> <i>Calculation performed 2020-02-24T17:54:13, v0.4</i></p> | | | | | | | | | |

Proposal 16375 - AV314-COS (2C) - ULLYSES SMC Late B Stars COS and STIS

| | | | | | | |
|--|--|------------------------|-----------------|------------------------------------|---------------------------|-----|
| 6 | G130M/129 (2) AV314 1-4 (COS.sp.147 0923) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=31 6; FP-POS=4 | 732 Secs (732 Secs) | |
| | | | | | [==>] | [2] |
| <p>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5Iab --> B5 I SED = AV314_COS_G130M_c1291_sed.fits For exptime=1648.3 s, spectral region: 1150.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 2195.8 cts/s/segment brightest pixel: 0.042 cts/s/pix at 1255.0 A Calculation performed 2020-02-24T17:54:13, v0.4</p> | | | | | | |
| 7 | G185M/195 (2) AV314 3 (COS.sp.147 0925) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=84 6; FP-POS=ALL | 366 Secs (1354 Secs) | |
| | | | | | [==>311.0 Secs (Split 1)] | [2] |
| | | | | | [==>311.0 Secs (Split 2)] | |
| | | | | | [==>(Split 3)] | [3] |
| <p>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5Iab --> B5 I SED = AV314_COS_G185M_c1953_sed.fits For exptime=1404.7 s, spectral region: 1860.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1623.3 cts/s/segment brightest pixel: 0.123 cts/s/pix at 1872.0 A Calculation performed 2020-02-24T17:54:16, v0.4</p> | | | | | | |
| 8 | G185M/198 (2) AV314 6 (COS.sp.147 0926) | COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=85 2; FP-POS=ALL | 320 Secs (1280 Secs) | |
| | | | | | [==>(Split 1)] | |
| | | | | | [==>(Split 2)] | |
| | | | | | [==>(Split 3)] | [3] |
| <p>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam); cos,nuv,g185m,c1986,psa,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5Iab --> B5 I SED = AV314_COS_G185M_c1986_sed.fits For exptime=1309.4 s, spectral region: 1980.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1609.7 cts/s/segment brightest pixel: 0.124 cts/s/pix at 1875.0 A Calculation performed 2020-02-24T17:54:16, v0.4</p> | | | | | | |





Proposal 16375, AV314-COS (BC), implementation

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 2C; AV314; P/COS approved for submission; P/CP 03/11/20 ; intrev: complete ; P/AF 14/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; AV314 ; COS ; CP
vcheck; ETC numbers entered in APT?; Done
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; Do dispersed G160M c1611 exposure to optimize efficiency and orbit packing
vcheck; Possible ACQ or Sci spoilers?; none
vcheck; Field BOT clear?; yes ...
3 unknowns flagged; one is target, the other (S0XG331178) is not visible in GSC2 image and has N-plate mag=17.93 (no F or J plate mag so apparently a very faint, very red object)
The third is a relatively bright star that is marked as both safe and unknown (not a point source) for c1291, but Zaritsky gives UBV1=13.19, 14.362, 14.543, 14.924, and an unreddened O star with U=13.19 is safe (COS.sp.1470942)
All other stars (except for the target) in macro-aperture are fainter than this one
vcheck; Visual BOT check for stars not in catalog?; None found
vcheck; Orbit packing finalized?; yes ...
achieved 90% of requested c1291, 88% of c1611, 96% of c1953, 98% of c1986.
1st two FP-POS of c1953 are a bit shorter than the last two positions (311s vs 366s per FP-POS)
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
 Allocated COS orbits = 3

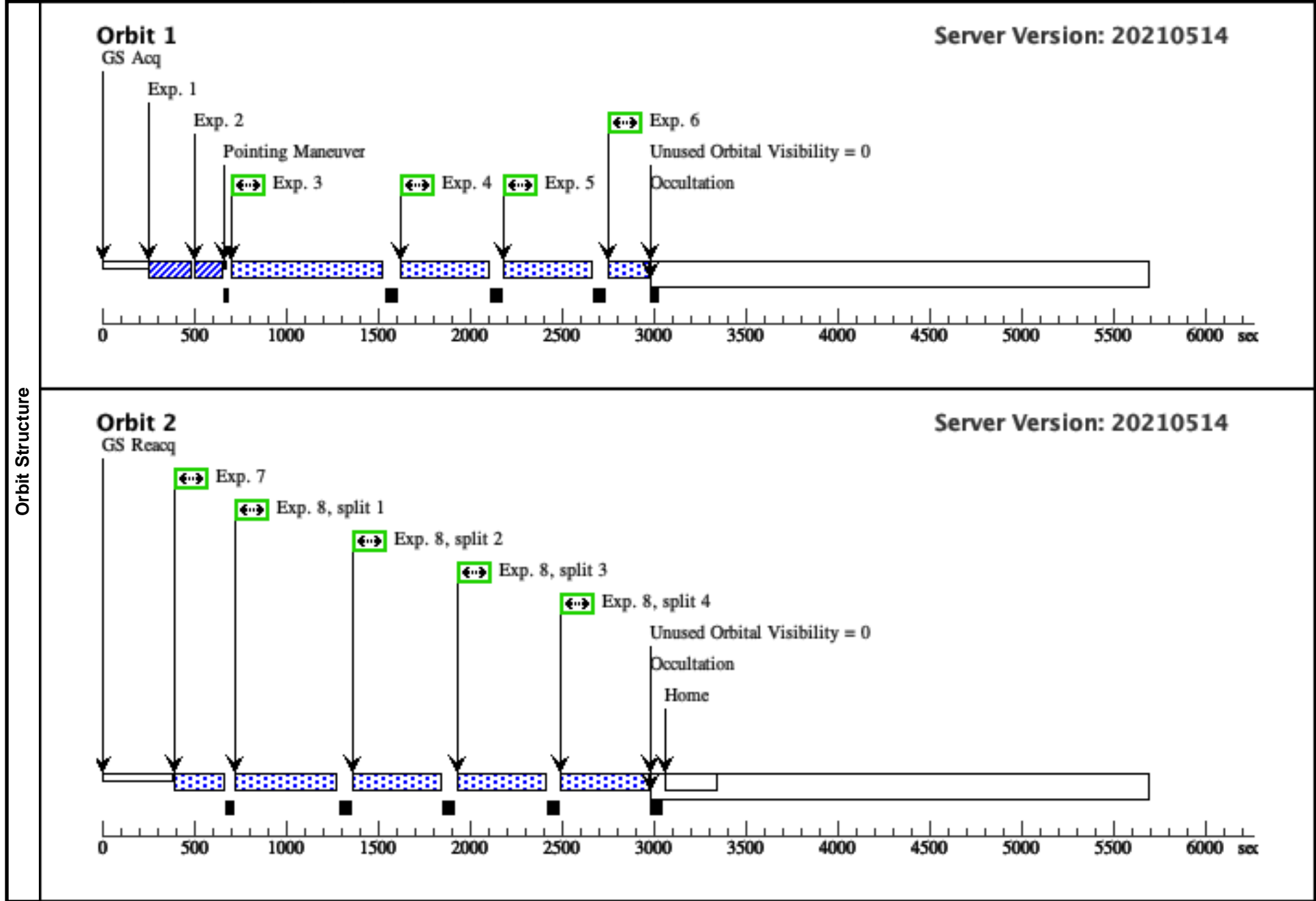
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|--|----------------------------|---------------------------------|--------------------------|--|-----------------------|
| (2) | AV314 | RA: 01 02 48.5034 (15.7020975d) | | V=12.87 | Reference Frame: ICRS |
| | Alt Name1: AZV314 | Dec: -72 16 45.41 (-72.27928d) | | SpT=B5Iab; E(B-V)=0.00; U=1 | |
| | Alt Name2: M2002-SMC-54568 | Equinox: J2000 | | ; F1160=1.85e-13; F1360=1.78e-13; F1700=1.48e-13; F2200=1.03e-13 | |
| <p><i>Comments: AV314 : AV_314, AzV314, AzV 314</i> <i>Previous name : AzV314</i> <i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>SIMBAD link (AzV 314): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+314&submit=submit+id</i> <i>SpT = B5Iab</i> <i>COS/G130M/c1291 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i> <i>COS/G160M/c1611 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> <i>COS/G185M/c1921 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> <i>COS/G185M/c1953 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> <i>COS/G185M/c1986 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> <i>STIS/E140M/c1425 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i> <i>STIS/E230M/c1978 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> <i>STIS/E230M/c2707 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:08, v0.4</p> <hr/> <p><i>tstatus; AV314; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/DW 22/05/21</i> <i>tcheck; APT/SIMBAD target names: ; AV314 'AV 314'</i> <i>tcheck; Target info verification status?; good</i> <i>tcheck; Coordinates & P.M. updated?; Verified (not including proper motions)</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> <i>For STIS/E230M, new G430L spectrum agrees well with IUE, B, V (but U seems too bright) -- model slightly overestimates Balmer jump -- SED2707 agrees reasonably well with IUE over most of E230H/2707 range - G430L acq has only target in acq box</i> Category=EXT-STAR Description=[B3-B5 III-I] Extended=NO</p> | | | | | |

Proposal 16375 - AV314-COS (BC) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit | |
|---|---|--|--------------------------|----------------------------------|---|---------------|------------------------------|---------------------------------|-------|--|
| Exposures | 1 | ACQ/PEAK (2) AV314 XD (COS.sa.147 0919) | COS/FUV, ACQ/PEAKXD, PSA | G160M 1611 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | | 1 Secs (1 Secs) [==>] | [1] | |
| | <i>Comments: c1291 needs 1.3s (COS.sa.1470835) c1611 needs 1.0s (COS.sa.1470836)</i> | | | | | | | | | |
| | 2 | ACQ/PEAK (2) AV314 D (COS.sa.147 0919) | COS/FUV, ACQ/PEAKD, PSA | G160M 1611 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | | 1 Secs (1 Secs) [==>] | [1] | |
| | 3 | G185M/195 (2) AV314 3 (COS.sp.147 0925) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=84 6; FP-POS=1 | | | 460 Secs (460 Secs) [==>] | [1] | |
| | <i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5Iab --> B5 I SED = AV314_COS_G185M_c1953_sed.fits For exptime=1404.7 s, spectral region: 1860.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1623.3 cts/s/segment brightest pixel: 0.123 cts/s/pix at 1872.0 A Calculation performed 2020-02-24T17:54:16, v0.4</i> | | | | | | | | | |
| 4 | G185M/195 (2) AV314 3 (COS.sp.147 0925) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=84 6; FP-POS=2 | | | 460 Secs (460 Secs) [==>] | [1] | | |
| <i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5Iab --> B5 I SED = AV314_COS_G185M_c1953_sed.fits For exptime=1404.7 s, spectral region: 1860.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1623.3 cts/s/segment brightest pixel: 0.123 cts/s/pix at 1872.0 A Calculation performed 2020-02-24T17:54:16, v0.4</i> | | | | | | | | | | |
| 5 | G185M/195 (2) AV314 3 (COS.sp.147 0925) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=84 6; FP-POS=3 | | | 460 Secs (460 Secs) [==>] | [1] | | |
| <i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5Iab --> B5 I SED = AV314_COS_G185M_c1953_sed.fits For exptime=1404.7 s, spectral region: 1860.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1623.3 cts/s/segment brightest pixel: 0.123 cts/s/pix at 1872.0 A Calculation performed 2020-02-24T17:54:16, v0.4</i> | | | | | | | | | | |

Proposal 16375 - AV314-COS (BC) - ULLYSES SMC Late B Stars COS and STIS

| | | | | | | |
|--|--|------------------------|-----------------|------------------------------------|--|-----|
| 6 | G185M/195 (2) AV314 3 (COS.sp.147 0925) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=84 6; FP-POS=4 | 207 Secs (207 Secs) [==>] | [1] |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_COS_G185M_c1953_sed.fits</i> <i>For exptime=1404.7 s, spectral region:</i> <i>1860.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1623.3 cts/s/segment</i> <i>brightest pixel: 0.123 cts/s/pix at 1872.0 A</i> <i>Calculation performed 2020-02-24T17:54:16, v0.4</i></p> | | | | | | |
| 7 | G185M/195 (2) AV314 3 (COS.sp.147 0925) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=84 6; FP-POS=4 | 253 Secs (253 Secs) [==>] | [2] |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_COS_G185M_c1953_sed.fits</i> <i>For exptime=1404.7 s, spectral region:</i> <i>1860.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1623.3 cts/s/segment</i> <i>brightest pixel: 0.123 cts/s/pix at 1872.0 A</i> <i>Calculation performed 2020-02-24T17:54:16, v0.4</i></p> | | | | | | |
| 8 | G185M/198 (2) AV314 6 (COS.sp.147 0926) | COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=85 2; FP-POS=ALL | 460 Secs (1840 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [2] |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam); cos,nuv,g185m,c1986,psa,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_COS_G185M_c1986_sed.fits</i> <i>For exptime=1309.4 s, spectral region:</i> <i>1980.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1609.7 cts/s/segment</i> <i>brightest pixel: 0.124 cts/s/pix at 1875.0 A</i> <i>Calculation performed 2020-02-24T17:54:16, v0.4</i></p> | | | | | | |



Proposal 16375, AV314-STIS (2S), failed

Diagnostic Status: No Diagnostics

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

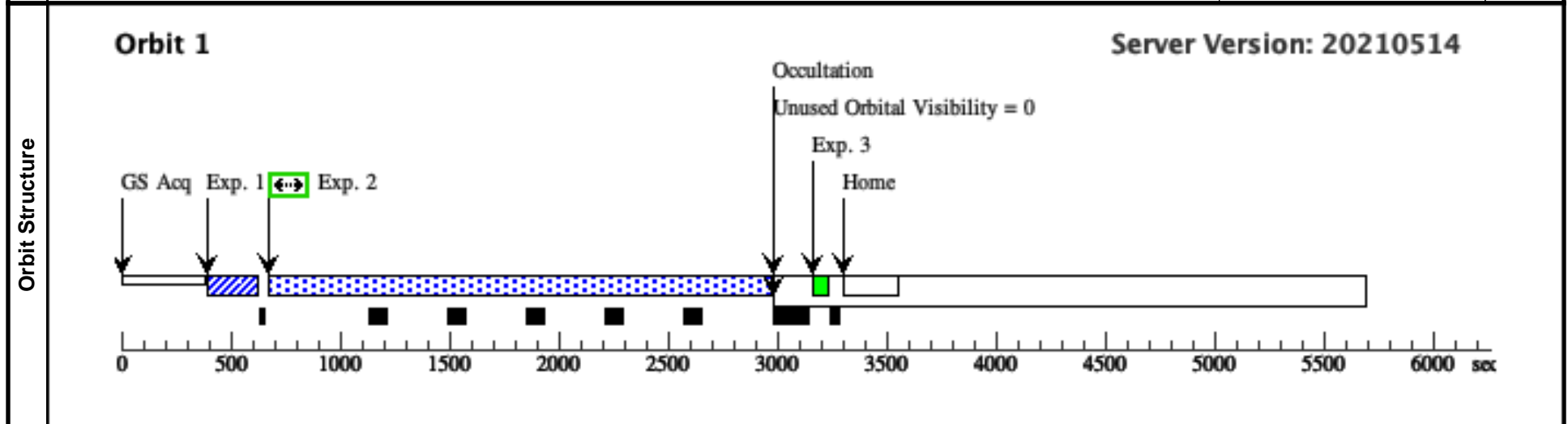
Special Requirements: SCHED 100%

Comments: vstatus; 2S; AV314; S/STIS approved for submission; S/CP 03/11/20 ; intrev: complete ; P/AF 14/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; AV314 ; STIS ; CP
vcheck; ETC numbers entered in APT?; Yes
vcheck; Any screening violations?; No
vcheck; S/N ETC calcs done & documented?; Yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; F28X50LP, 0.5s should yield S/N~120
vcheck; Possible ACQ or Sci spoilers?; no -- previous G430L acq shows no other objects in 5"x5" acq box
vcheck; Field BOT clear?; yes -- Gaia DR3 has nothing else with G<17.7 within 5"
vcheck; Visual BOT check for stars not in catalog?; none
vcheck; Orbit packing finalized?; yes, get 93% of requested time for c2707
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; yes
 Allocated STIS orbits = 1

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|-----|--|---------------------------------|--------------------------|--|-----------------------|
| (2) | AV314 | RA: 01 02 48.5034 (15.7020975d) | | V=12.87 | Reference Frame: ICRS |
| | Alt Name1: AZV314 | Dec: -72 16 45.41 (-72.27928d) | | SpT=B5Iab; E(B-V)=0.00; U=1 | |
| | Alt Name2: M2002-SMC-54568 | Equinox: J2000 | | 1.98 B=12.82; V=12.93; I=13.05 | |
| | | | | ; F1160=1.85e-13; F1360=1.78e-13; F1700=1.48e-13; F2200=1.03e-13 | |
| | <i>Comments: AV314 : AV_314, AzV314, AzV 314</i> | | | | |
| | <i>Previous name : AzV314</i> | | | | |
| | <i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> | | | | |
| | <i>SIMBAD link (AzV 314): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+314&submit=submit+id</i> | | | | |
| | <i>SpT = B5Iab</i> | | | | |
| | <i>COS/G130M/c1291 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i> | | | | |
| | <i>COS/G160M/c1611 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> | | | | |
| | <i>COS/G185M/c1921 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> | | | | |
| | <i>COS/G185M/c1953 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i> | | | | |
| | <i>COS/G185M/c1986 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> | | | | |
| | <i>STIS/E140M/c1425 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i> | | | | |
| | <i>STIS/E230M/c1978 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> | | | | |
| | <i>STIS/E230M/c2707 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i> | | | | |
| | <i>Coordinate pedigree: Gaia</i> | | | | |
| | <i>Calculation performed 2020-02-24T17:54:08, v0.4</i> | | | | |
| | ----- | | | | |
| | <i>tstatus; AV314; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/DW 22/05/21</i> | | | | |
| | <i>tcheck; APT/SIMBAD target names: ; AV314 'AV 314'</i> | | | | |
| | <i>tcheck; Target info verification status?; good</i> | | | | |
| | <i>tcheck; Coordinates & P.M. updated?; Verified (not including proper motions)</i> | | | | |
| | <i>tcheck; Adopted SED compared to Observations?; yes ...</i> | | | | |
| | <i>For STIS/E230M, new G430L spectrum agrees well with IUE, B, V (but U seems too bright) -- model slightly overestimates Balmer jump -- SED2707 agrees reasonably well with IUE over most of E230H/2707 range -</i> | | | | |
| | <i>- G430L acq has only target in acq box</i> | | | | |
| | <i>Category=EXT-STAR</i> | | | | |
| | <i>Description=[B3-B5 III-I]</i> | | | | |
| | <i>Extended=NO</i> | | | | |

Proposal 16375 - AV314-STIS (2S) - ULLYSES SMC Late B Stars COS and STIS

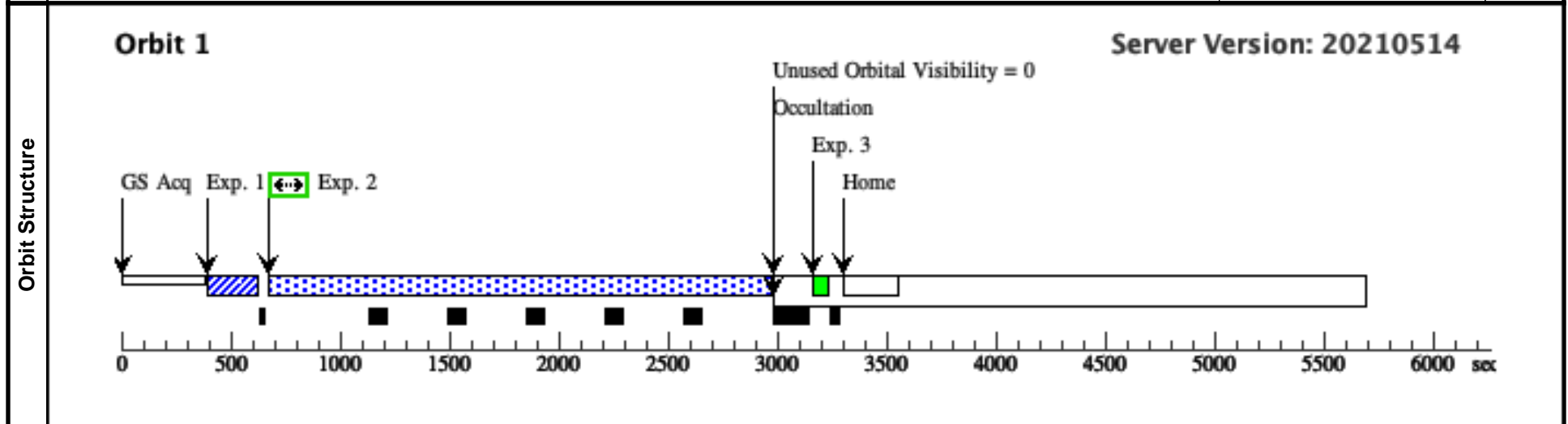
| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|--|-----------|----------------------------------|---------------|------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.147 0940) | (2) AV314 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| <i>Comments: see also TA exposure oec691hlq from proposal 16230</i> | | | | | | | | | |
| 2 | E230M/270 7 (STIS.sp.14 70938) | (2) AV314 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=36 0 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_STIS_E230M_c2707_sed.fits</i> <i>For exptime=2335.3 s, spectral region:</i> <i>2800.0 +- 0.5 A achieves SNR=20.0/resel</i> <i>global countrate (brightest segment): 4147.8 cts/s/segment</i> <i>brightest pixel: 0.047 cts/s/pix at 2648.0 A</i> <i>Calculation performed 2020-02-24T17:54:20, v0.4</i> <i>ETC calculation using IUE spectrum yield similar results -- 0.061/4.4k cts/s, S/N~21 near 2800A (1517447)</i> | | | | | | | | | |
| 3 | E230M/270 7 WAVECAL (STIS.sp.14 70938) | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |



| Visit | <p>Proposal 16375, AV314-STIS (BS)</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: STIS/NUV-MAMA, STIS/CCD</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 2S; AV314; S/STIS approved for submission; S/CP 03/11/20 ; intrev: complete ; P/AF 14/07/21</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; AV314 ; STIS ; CP</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; Yes</i></p> <p><i>vcheck; Field images checked & saved?; yes</i></p> <p><i>vcheck; Selected ACQ strategy?; F28X50LP, 0.5s should yield S/N~120</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; no -- previous G430L acq shows no other objects in 5"x5" acq box</i></p> <p><i>vcheck; Field BOT clear?; yes -- Gaia DR3 has nothing else with G<17.7 within 5"</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; none</i></p> <p><i>vcheck; Orbit packing finalized?; yes, get 93% of requested time for c2707</i></p> <p><i>vcheck; Buffer times optimized?; yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; yes</i></p> <p><i>Allocated STIS orbits = 1</i></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|---------------------------------|--------------------------|--|-----------------------|---|------|--------------------|--------------------------|--------|---------------|-----|-------|---------------------------------|--|---------|-----------------------|--|-------------------|--------------------------------|--|-----------------------------|--|--|----------------------------|----------------|--|--------------------------------|--|--|--|--|--|--|
| | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>AV314</td> <td>RA: 01 02 48.5034 (15.7020975d)</td> <td></td> <td>V=12.87</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: AZV314</td> <td>Dec: -72 16 45.41 (-72.27928d)</td> <td></td> <td>SpT=B5Iab; E(B-V)=0.00; U=1</td> <td></td> </tr> <tr> <td></td> <td>Alt Name2: M2002-SMC-54568</td> <td>Equinox: J2000</td> <td></td> <td>1.98 B=12.82; V=12.93; I=13.05</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>; F1160=1.85e-13; F1360=1.78e-13; F1700=1.48e-13; F2200=1.03e-13</td> <td></td> </tr> </tbody> </table> <p><i>Comments: AV314 : AV_314, AzV314, AzV 314</i></p> <p><i>Previous name : AzV314</i></p> <p><i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>SIMBAD link (AzV 314): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+314&submit=submit+id</i></p> <p><i>SpT = B5Iab</i></p> <p><i>COS/G130M/c1291 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i></p> <p><i>COS/G160M/c1611 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i></p> <p><i>COS/G185M/c1921 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i></p> <p><i>COS/G185M/c1953 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1700 +- 5.0A flux=1.5e-13 Flam)</i></p> <p><i>COS/G185M/c1986 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i></p> <p><i>STIS/E140M/c1425 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux1360 +- 30.0A flux=1.8e-13 Flam)</i></p> <p><i>STIS/E230M/c1978 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i></p> <p><i>STIS/E230M/c2707 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam)</i></p> <p><i>Coordinate pedigree: Gaia</i></p> <p><i>Calculation performed 2020-02-24T17:54:08, v0.4</i></p> <p>-----</p> <p><i>tstatus; AV314; P/COS approved for submission; S/STIS approved for submission; P/CP 02/11/20; S/DW 22/05/21</i></p> <p><i>tcheck; APT/SIMBAD target names: ; AV314 'AV 314'</i></p> <p><i>tcheck; Target info verification status?; good</i></p> <p><i>tcheck; Coordinates & P.M. updated?; Verified (not including proper motions)</i></p> <p><i>tcheck; Adopted SED compared to Observations?; yes ...</i></p> <p><i>For STIS/E230M, new G430L spectrum agrees well with IUE, B, V (but U seems too bright) -- model slightly overestimates Balmer jump -- SED2707 agrees reasonably well with IUE over most of E230H/2707 range - G430L acq has only target in acq box</i></p> <p><i>Category=EXT-STAR</i></p> <p><i>Description=[B3-B5 III-I]</i></p> <p><i>Extended=NO</i></p> | | | | | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | (2) | AV314 | RA: 01 02 48.5034 (15.7020975d) | | V=12.87 | Reference Frame: ICRS | | Alt Name1: AZV314 | Dec: -72 16 45.41 (-72.27928d) | | SpT=B5Iab; E(B-V)=0.00; U=1 | | | Alt Name2: M2002-SMC-54568 | Equinox: J2000 | | 1.98 B=12.82; V=12.93; I=13.05 | | | | | | ; F1160=1.85e-13; F1360=1.78e-13; F1700=1.48e-13; F2200=1.03e-13 |
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (2) | AV314 | RA: 01 02 48.5034 (15.7020975d) | | V=12.87 | Reference Frame: ICRS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Alt Name1: AZV314 | Dec: -72 16 45.41 (-72.27928d) | | SpT=B5Iab; E(B-V)=0.00; U=1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Alt Name2: M2002-SMC-54568 | Equinox: J2000 | | 1.98 B=12.82; V=12.93; I=13.05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | ; F1160=1.85e-13; F1360=1.78e-13; F1700=1.48e-13; F2200=1.03e-13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Proposal 16375 - AV314-STIS (BS) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|--|-----------|----------------------------------|---------------|------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.147 0940) | (2) AV314 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| <i>Comments: see also TA exposure oec691hlq from proposal 16230</i> | | | | | | | | | |
| 2 | E230M/270 7 (STIS.sp.14 70938) | (2) AV314 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=36 0 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5), flux2200 +- 5.0A flux=1e-13 Flam); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5Iab --> B5 I</i> <i>SED = AV314_STIS_E230M_c2707_sed.fits</i> <i>For exptime=2335.3 s, spectral region:</i> <i>2800.0 +- 0.5 A achieves SNR=20.0/resel</i> <i>global countrate (brightest segment): 4147.8 cts/s/segment</i> <i>brightest pixel: 0.047 cts/s/pix at 2648.0 A</i> <i>Calculation performed 2020-02-24T17:54:20, v0.4</i> <i>ETC calculation using IUE spectrum yield similar results -- 0.061/4.4k cts/s, S/N~21 near 2800A (1517447)</i> | | | | | | | | | |
| 3 | E230M/270 7 WAVECAL (STIS.sp.14 70938) | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |



| | |
|-------------|--|
| Visit | <p>Proposal 16375, AV343-COS (3C), scheduling</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 3C; AV343; P/COS approved for submission ; P/RS 24/06/21 ; intrev: complete ; P/AF 14/07/21</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; AV343 ; COS ; RS</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; N/A</i></p> <p><i>vcheck; Field images checked & saved?; Yes</i></p> <p><i>vcheck; Selected ACQ strategy?;</i></p> <p><i>NUV ACQ/PEAKD COS.sa.1473724 6 s; ACQ/PEAKXD 18s COS.sa.1473725; both c1941</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; no</i></p> <p><i>vcheck; Field BOT clear?; yes, only the target is flagged</i></p> <p><i>close companion in PSA macro-aperture that is not in GSC2 has V=16.169, U=15.146 in Zaritsky</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; OK (if we use Zaritsky rather than just GSC2)</i></p> <p><i>vcheck; Orbit packing finalized?; Yes</i></p> <p><i>vcheck; Buffer times optimized?; Yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; Yes</i></p> <p><i>Allocated COS orbits = 4</i></p> |
| Diagnostics | <p>(AV343-COS (3C)) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.</p> |

Proposal 16375 - AV343-COS (3C) - ULLYSES SMC Late B Stars COS and STIS

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|-----|--|---------------------------------|--------------------------|-------------------------------|-----------------------|
| (3) | AV343 | RA: 01 03 56.2007 (15.9841696d) | | V=13.05 | Reference Frame: ICRS |
| | Alt Name1: AZV-343 | Dec: -72 42 6.28 (-72.70174d) | | SpT=B6Iab; E(B-V)=0.02; U=1 | |
| | Alt Name2: SK-111 | Equinox: J2000 | | 2.3; B=13.0; V=13.1; R=12.99; | |
| | | | | G=13.06; F1360=8.3e-14 | |
| | <p>Comments: AV343 : AV_343, AzV343, AzV 343 Previous name : AzV343 Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv SIMBAD link (AzV 343): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+343&submit=submit+id SpT = B6Iab COS/G130M/c1291 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G160M/c1611 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1921 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1953 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1986 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E140M/c1425 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E230M/c1978 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E230M/c2707 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:33, v0.4</p> <hr/> <p>tstatus; AV343; P/COS approved for submission ; S/STIS approved for submission; P/RS 24/06/21; S/DW 22/05/21 tcheck; APT/SIMBAD target names: ; AV343 'AzV 343' ... aka Sk 111 tcheck; Target info verification status?: Good tcheck; Coordinates & P.M. updated?: Good tcheck; Adopted SED compared to Observations?: yes ... Shape of adopted spectrum matches IUE obs, but observed IUE fluxes only ~ 80% of that found from default model U band normalization. Instead normalize to F1360=8.3e-14 with E(B-V)=0.029 smcbar to optimize fit over UV range. In box folder this is in the file AV343_revised_sed.fits which should be used for all FUV ETC calculations. Note that two sets of IUE spectra were taken a number of years apart (swp09317 & lwp02614 vs swp22006 & lwr08078) and show excellent agreement so unlikely that target was just poorly centered. For STIS/E230M, new G430L spectrum agrees well with IUE, B, V (but U seems too bright) -- model ok at Balmer jump -- SED2707 agrees reasonably well with IUE over most of E230H/2707 range -- mwavg extinction used (MW foreground should dominate, for this low E(B-V)) -- G430L acq has only target in acq box Category=EXT-STAR Description=[B6-B9.5 III-I] Extended=NO</p> | | | | |

Fixed Targets

Proposal 16375 - AV343-COS (3C) - ULLYSES SMC Late B Stars COS and STIS

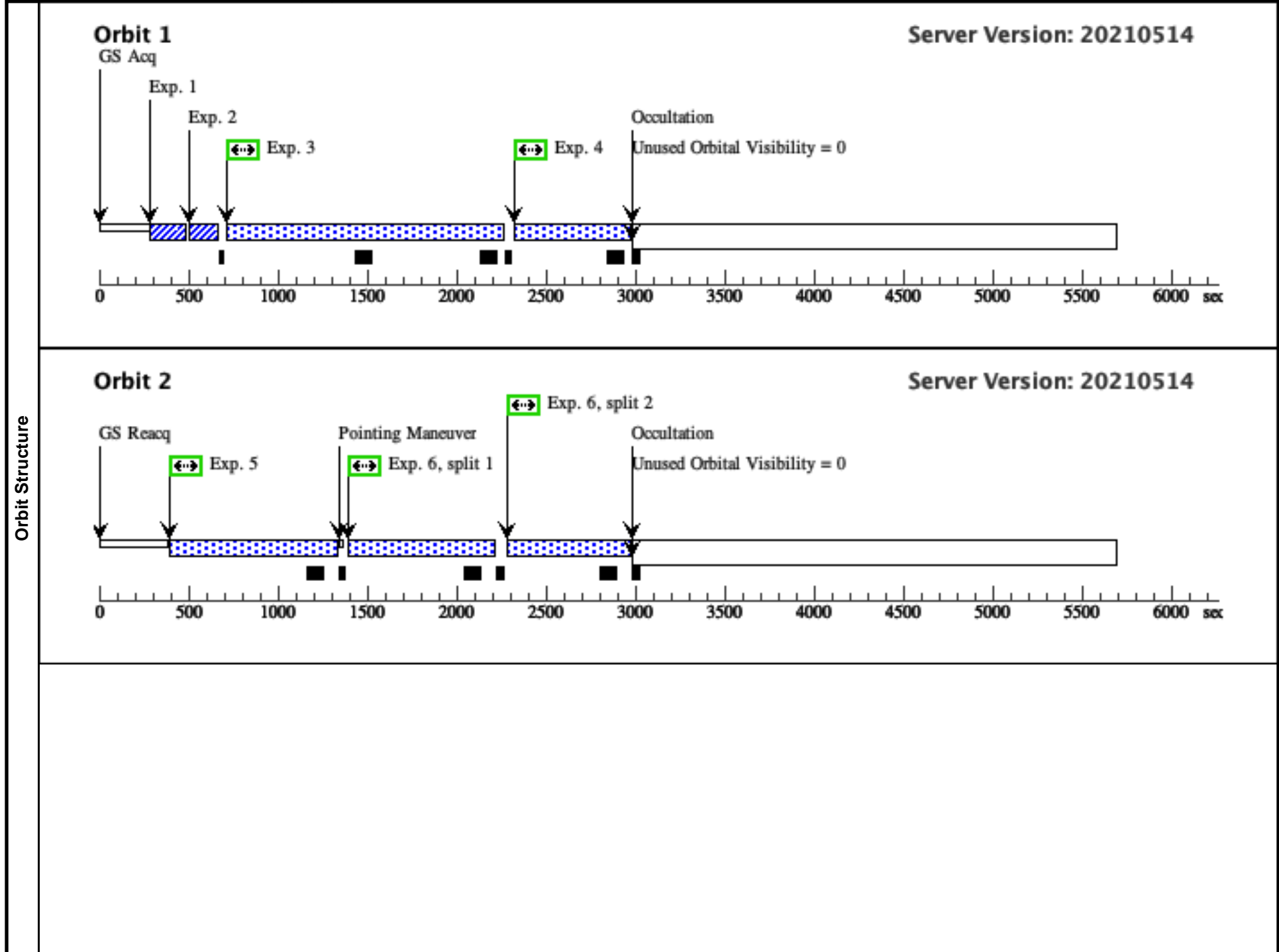
| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit | |
|--|---|---|--------------------------|----------------------------------|---|---------------|------------------------------|---------------------------------|-------|--|
| Exposures | 1 | ACQ/PEAK (3) AV343 XD (COS.sa.147 3712) | COS/FUV, ACQ/PEAKXD, PSA | G130M 1291 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | | 1.1 Secs (1.1 Secs) [==>] | [1] | |
| | 2 | ACQ/PEAK (3) AV343 D (COS.sa.147 3712) | COS/FUV, ACQ/PEAKD, PSA | G130M 1291 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | | 1.1 Secs (1.1 Secs) [==>] | [1] | |
| | 3 | G130M/129 (3) AV343 1-3 (COS.sp.152 0862) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=69 5; FP-POS=3 | | | 1500 Secs (1500 Secs) [==>] | [1] | |
| | <p><i>Comments: With revised SED requires 4180s or 2090 per FP-POS</i></p> <p><i>rn(ck04models(B61,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i></p> <p><i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>Spectral type: B6lab --> B6 I</i></p> <p><i>SED = AV343_COS_G130M_c1291_sed.fits</i></p> <p><i>For exptime=2979.1 s, spectral region:</i></p> <p><i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i></p> <p><i>global countrate (brightest segment): 1572.7 cts/s/segment</i></p> <p><i>brightest pixel: 0.027 cts/s/pix at 1277.0 A</i></p> <p><i>Calculation performed 2020-02-24T17:54:37, v0.4</i></p> | | | | | | | | | |
| | 4 | G130M/129 (3) AV343 1-4a (COS.sp.152 0862) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=48 9; FP-POS=4 | | | 599 Secs (599 Secs) [==>] | [1] | |
| <p><i>Comments: rn(ck04models(B61,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i></p> <p><i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>Spectral type: B6lab --> B6 I</i></p> <p><i>SED = AV343_COS_G130M_c1291_sed.fits</i></p> <p><i>For exptime=2979.1 s, spectral region:</i></p> <p><i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i></p> <p><i>global countrate (brightest segment): 1572.7 cts/s/segment</i></p> <p><i>brightest pixel: 0.027 cts/s/pix at 1277.0 A</i></p> <p><i>Calculation performed 2020-02-24T17:54:37, v0.4</i></p> | | | | | | | | | | |
| 5 | G130M/129 (3) AV343 1-4b (COS.sp.152 0862) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=73 5; FP-POS=4 | | | 892 Secs (892 Secs) [==>] | [2] | | |
| <p><i>Comments: rn(ck04models(B61,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i></p> <p><i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>Spectral type: B6lab --> B6 I</i></p> <p><i>SED = AV343_COS_G130M_c1291_sed.fits</i></p> <p><i>For exptime=2979.1 s, spectral region:</i></p> <p><i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i></p> <p><i>global countrate (brightest segment): 1572.7 cts/s/segment</i></p> <p><i>brightest pixel: 0.027 cts/s/pix at 1277.0 A</i></p> <p><i>Calculation performed 2020-02-24T17:54:37, v0.4</i></p> | | | | | | | | | | |

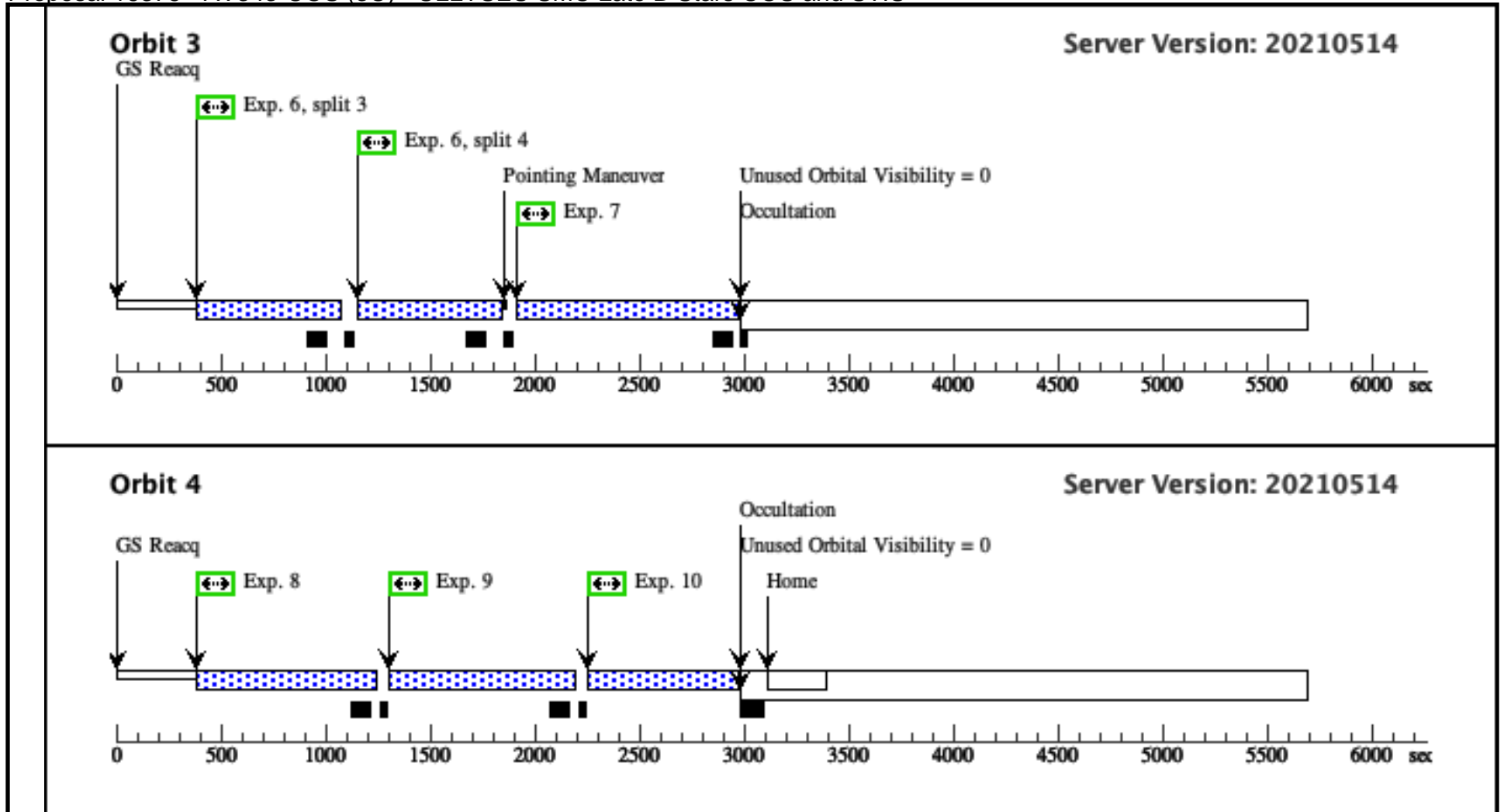
Proposal 16375 - AV343-COS (3C) - ULLYSES SMC Late B Stars COS and STIS

| | | | | | | | |
|---|--|-----------|------------------------|-----------------|------------------------------------|--|------------|
| 6 | G160M/161 1 (COS.sp.152 0863) | (3) AV343 | COS/FUV, TIME-TAG, PSA | G160M 1611 A | BUFFER-TIME=48 5; FP-POS=ALL | 639 Secs (2556 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [2] [3] |
| <p><i>Comments: with revised model requies 2603s or 650 per FP-POS</i></p> <p><i>rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B6lab --> B6 I</i> <i>SED = AV343_COS_G160M_c1611_sed.fits</i> <i>For exptime=1978.1 s, spectral region:</i> <i>1590.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1619.0 cts/s/segment</i> <i>brightest pixel: 0.024 cts/s/pix at 1447.0 A</i> <i>Calculation performed 2020-02-24T17:54:40, v0.4</i></p> | | | | | | | |
| 7 | G185M/198 6-1 (COS.sp.152 0864) | (3) AV343 | COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=58 5; FP-POS=1 | 695 Secs (695 Secs) [==>] | [3] |
| <p><i>Comments: with revised SED requires 2079s</i></p> <p><i>rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,nuv,g185m,c1986,psa,mjd#59305)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B6lab --> B6 I</i> <i>SED = AV343_COS_G185M_c1986_sed.fits</i> <i>For exptime=1591.6 s, spectral region:</i> <i>1980.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1487.6 cts/s/segment</i> <i>brightest pixel: 0.100 cts/s/pix at 1875.0 A</i> <i>Calculation performed 2020-02-24T17:54:41, v0.4</i></p> | | | | | | | |
| 8 | G185M/198 6-4 (COS.sp.152 0864) | (3) AV343 | COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=73 2; FP-POS=4 | 842 Secs (842 Secs) [==>] | [4] |
| <p><i>Comments: with revised SED requires 2079s</i></p> <p><i>rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,nuv,g185m,c1986,psa,mjd#59305)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B6lab --> B6 I</i> <i>SED = AV343_COS_G185M_c1986_sed.fits</i> <i>For exptime=1591.6 s, spectral region:</i> <i>1980.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1487.6 cts/s/segment</i> <i>brightest pixel: 0.100 cts/s/pix at 1875.0 A</i> <i>Calculation performed 2020-02-24T17:54:41, v0.4</i></p> | | | | | | | |
| 9 | G185M/195 3-1 (COS.sp.152 0865) | (3) AV343 | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=69 0; FP-POS=1 | 800 Secs (800 Secs) [==>] | [4] |
| <p><i>Comments: with revised sed requires 2386s</i></p> <p><i>rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,nuv,g185m,c1953,psa,mjd#59305)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B6lab --> B6 I</i> <i>SED = AV343_COS_G185M_c1953_sed.fits</i> <i>For exptime=1818.0 s, spectral region:</i> <i>1860.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1475.1 cts/s/segment</i> <i>brightest pixel: 0.096 cts/s/pix at 1872.0 A</i> <i>Calculation performed 2020-02-24T17:54:41, v0.4</i></p> | | | | | | | |

Proposal 16375 - AV343-COS (3C) - ULLYSES SMC Late B Stars COS and STIS

| | | | | | | |
|--|--|------------------------|-----------------|----------------------------------|---------------------|-----|
| 10 | G185M/195 (3) AV343 3-4 (COS.sp.152 0865) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=65 2; FP-POS=4 | 700 Secs (700 Secs) | |
| | | | | | [==>] | [4] |
| <p><i>Comments: with revised sed requires 2386s</i></p> <p><i>rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); cos,nuv,g185m,c1953,psa,mjd#59305</i></p> <p><i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>Spectral type: B6Iab --> B6 I</i></p> <p><i>SED = AV343_COS_G185M_c1953_sed.fits</i></p> <p><i>For exptime=1818.0 s, spectral region:</i></p> <p><i>1860.0 +- 0.5 A achieves SNR=30.0/resel</i></p> <p><i>global countrate (brightest segment): 1475.1 cts/s/segment</i></p> <p><i>brightest pixel: 0.096 cts/s/pix at 1872.0 A</i></p> <p><i>Calculation performed 2020-02-24T17:54:41, v0.4</i></p> | | | | | | |





Proposal 16375, AV343-STIS (3S), failed

Diagnostic Status: No Diagnostics

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

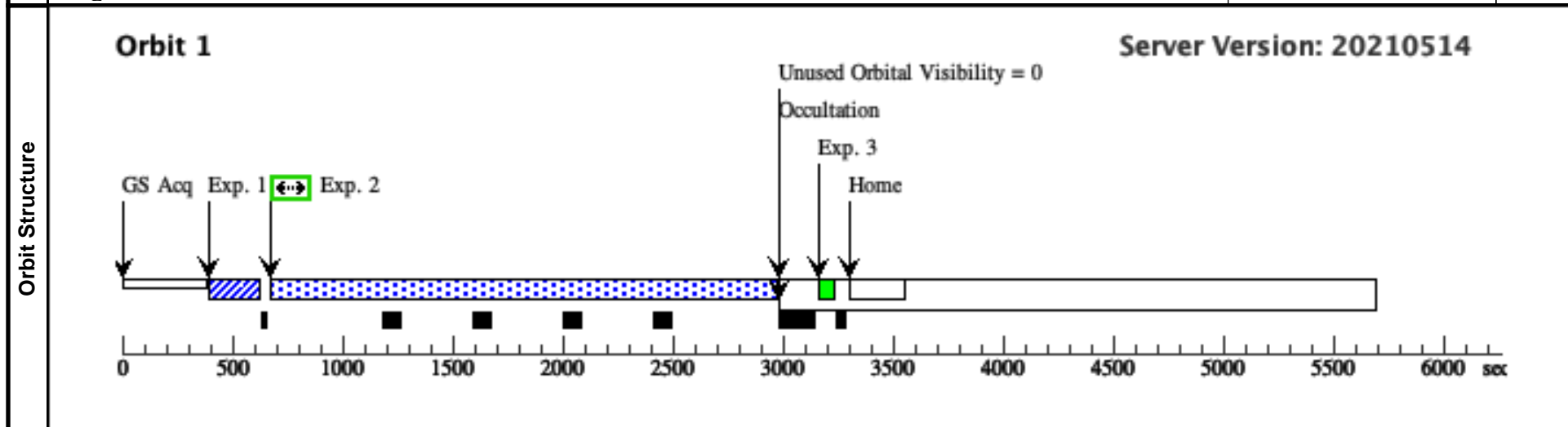
Special Requirements: SCHED 100%

Comments: vstatus; 3S; AV343; S/STIS approved for submission; S/DW 22/05/21 ; intrev: complete ; P/AF 14/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; AV343 ; STIS ; DW
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no -- GSC2 and GALEX list as safe, ETC confirms
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; F28x50LP, 0.5s should yield S/N~115
vcheck; Possible ACQ or Sci spoilers?; no -- previous G430L acq shows no other objects in 5"x5" acq box
vcheck; Field BOT clear?; yes -- clearance region dominated by saturated core of target
vcheck; Visual BOT check for stars not in catalog?; yes ...
Gaia DR3 has star with G=16.1 at 5.1", all others within 10" are much fainter
vcheck; Orbit packing finalized?; yes
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; n/a
vcheck; Is visit ready for int. review?; yes
 Allocated STIS orbits = 1

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|--|--------------------|---------------------------------|--------------------------|-------------------------------|-----------------------|
| (3) | AV343 | RA: 01 03 56.2007 (15.9841696d) | | V=13.05 | Reference Frame: ICRS |
| | Alt Name1: AZV-343 | Dec: -72 42 6.28 (-72.70174d) | | SpT=B6Iab; E(B-V)=0.02; U=1 | |
| | Alt Name2: SK-111 | Equinox: J2000 | | 2.3; B=13.0; V=13.1; R=12.99; | |
| | | | | G=13.06; F1360=8.3e-14 | |
| <p><i>Comments: AV343 : AV_343, AzV343, AzV 343</i> Previous name : AzV343 Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv SIMBAD link (AzV 343): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+343&submit=submit+id SpT = B6Iab COS/G130M/c1291 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G160M/c1611 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1921 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1953 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1986 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E140M/c1425 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E230M/c1978 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E230M/c2707 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:33, v0.4</p> <hr/> <p><i>tstatus; AV343; P/COS approved for submission ; S/STIS approved for submission; P/RS 24/06/21; S/DW 22/05/21</i> <i>tcheck; APT/SIMBAD target names: ; AV343 'AzV 343' ...</i> aka Sk 111 <i>tcheck; Target info verification status?; Good</i> <i>tcheck; Coordinates & P.M. updated?; Good</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> Shape of adopted spectrum matches IUE obs, but observed IUE fluxes only ~ 80% of that found from default model U band normalization. Instead normalize to F1360=8.3e-14 with E(B-V)=0.029 smcbar to optimize fit over UV range. In box folder this is in the file AV343_revised_sed.fits which should be used for all FUV ETC calculations. Note that two sets of IUE spectra were taken a number of years apart (swp09317 & lwp02614 vs swp22006 & lwr08078) and show excellent agreement so unlikely that target was just poorly centered. For STIS/E230M, new G430L spectrum agrees well with IUE, B, V (but U seems too bright) -- model ok at Balmer jump -- SED2707 agrees reasonably well with IUE over most of E230H/2707 range -- mwavg extinction used (MW foreground should dominate, for this low E(B-V)) -- G430L acq has only target in acq box Category=EXT-STAR Description=[B6-B9.5 III-I] Extended=NO</p> | | | | | |

Proposal 16375 - AV343-STIS (3S) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|--|-----------|----------------------------------|-----------------|------------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.147 3722) | (3) AV343 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| 2 | E230M/270 7 (STIS.sp.14 73723) | (3) AV343 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=41 0 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <p>Comments: Revised SED based on IUE spectrum requires 3511s</p> <p><i>rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305</i></p> <p>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</p> <p>Spectral type: B61ab --> B6 I</p> <p>SED = AV343_STIS_E230M_c2707_sed.fits</p> <p>For exptime=2695.6 s, spectral region: 2800.0 +- 0.5 A achieves SNR=20.0/resel</p> <p>global countrate (brightest segment): 3915.3 cts/s/segment</p> <p>brightest pixel: 0.042 cts/s/pix at 2647.5 A</p> <p>Calculation performed 2020-02-24T17:54:45, v0.4</p> <p>ETC calculations using IUE spectrum yield similar results -- 0.037/3.6k cts/s, S/N~17 near 2800A (1517451)</p> | | | | | | | | | |
| 3 | E230M/270 7 WAVECAL (STIS.sp.14 73723) | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |



Proposal 16375 - AV343-STIS (CS) - ULLYSES SMC Late B Stars COS and STIS

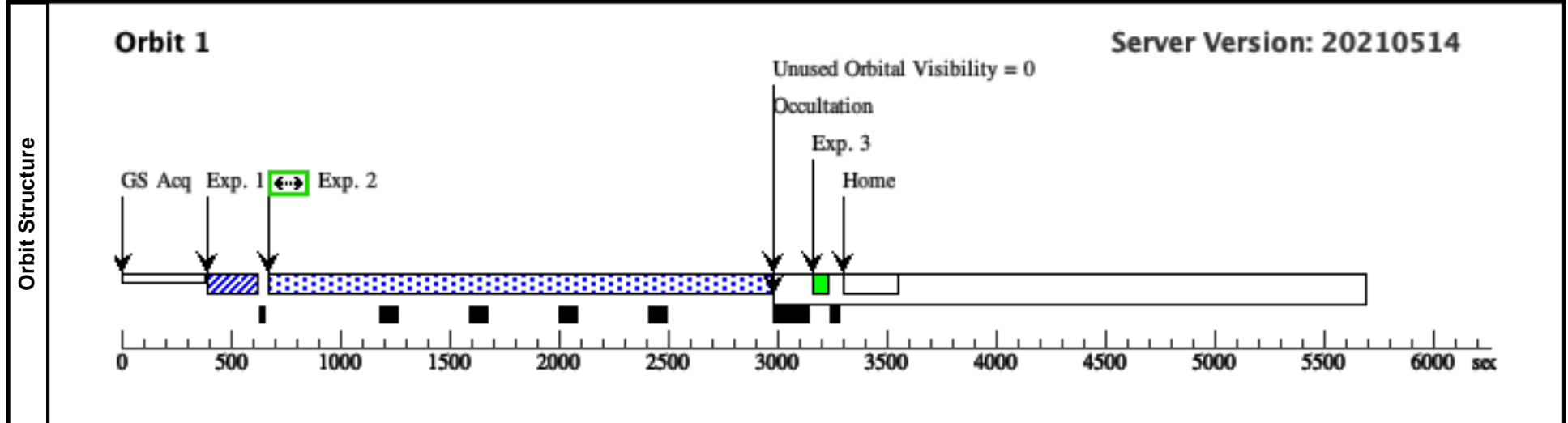
Wed Jan 05 16:00:50 GMT 2022

| | |
|--------------|--|
| Visit | <p>Proposal 16375, AV343-STIS (CS)</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: STIS/NUV-MAMA, STIS/CCD</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 3S; AV343; S/STIS approved for submission; S/DW 22/05/21 ; intrev: complete ; P/AF 14/07/21</i> <i>vcheck; Enter targ name & Inst. & Resp. Sci.; AV343 ; STIS ; DW</i> <i>vcheck; ETC numbers entered in APT?; yes</i> <i>vcheck; Any screening violations?; no -- GSC2 and GALEX list as safe, ETC confirms</i> <i>vcheck; S/N ETC calcs done & documented?; yes</i> <i>vcheck; Field images checked & saved?; yes</i> <i>vcheck; Selected ACQ strategy?; F28x50LP, 0.5s should yield S/N~115</i> <i>vcheck; Possible ACQ or Sci spoilers?; no -- previous G430L acq shows no other objects in 5"x5" acq box</i> <i>vcheck; Field BOT clear?; yes -- clearance region dominated by saturated core of target</i> <i>vcheck; Visual BOT check for stars not in catalog?; yes ...</i> <i>Gaia DR3 has star with G=16.1 at 5.1", all others within 10" are much fainter</i> <i>vcheck; Orbit packing finalized?; yes</i> <i>vcheck; Buffer times optimized?; yes</i> <i>vcheck; Verify visit grouping correct; n/a</i> <i>vcheck; Is visit ready for int. review?; yes</i> Allocated STIS orbits = 1</p> |
|--------------|--|

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|--|--------------------|---------------------------------|---------------------------------|---|-----------------------|
| | (3) | AV343 | RA: 01 03 56.2007 (15.9841696d) | | V=13.05 | Reference Frame: ICRS |
| | | Alt Name1: AZV-343 | Dec: -72 42 6.28 (-72.70174d) | | SpT=B6Iab; E(B-V)=0.02; U=1 | |
| | | Alt Name2: SK-111 | Equinox: J2000 | | 2.3; B=13.0; V=13.1; R=12.99; G=13.06; F1360=8.3e-14 | |
| | <p><i>Comments: AV343 : AV_343, AzV343, AzV 343</i> Previous name : AzV343 Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv SIMBAD link (AzV 343): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+343&submit=submit+id SpT = B6Iab COS/G130M/c1291 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G160M/c1611 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1921 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1953 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) COS/G185M/c1986 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E140M/c1425 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E230M/c1978 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) STIS/E230M/c2707 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag) Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:33, v0.4</p> <hr/> <p><i>tstatus; AV343; P/COS approved for submission ; S/STIS approved for submission; P/RS 24/06/21; S/DW 22/05/21</i> <i>tcheck; APT/SIMBAD target names: ; AV343 'AzV 343' ...</i> aka Sk 111 <i>tcheck; Target info verification status?; Good</i> <i>tcheck; Coordinates & P.M. updated?; Good</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> Shape of adopted spectrum matches IUE obs, but observed IUE fluxes only ~ 80% of that found from default model U band normalization. Instead normalize to F1360=8.3e-14 with E(B-V)=0.029 smcbar to optimize fit over UV range. In box folder this is in the file AV343_revised_sed.fits which should be used for all FUV ETC calculations. Note that two sets of IUE spectra were taken a number of years apart (swp09317 & lwp02614 vs swp22006 & lwr08078) and show excellent agreement so unlikely that target was just poorly centered. For STIS/E230M, new G430L spectrum agrees well with IUE, B, V (but U seems too bright) -- model ok at Balmer jump -- SED2707 agrees reasonably well with IUE over most of E230H/2707 range -- mwavg extinction used (MW foreground should dominate, for this low E(B-V)) -- G430L acq has only target in acq box Category=EXT-STAR Description=[B6-B9.5 III-I] Extended=NO</p> | | | | | |

Proposal 16375 - AV343-STIS (CS) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|--|-----------|----------------------------------|-----------------|------------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.147 3722) | (3) AV343 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| 2 | E230M/270 7 (STIS.sp.14 73723) | (3) AV343 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=41 0 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <p>Comments: Revised SED based on IUE spectrum requires 3511s</p> <p><i>rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5) (extinction smcbar=0.020), johnson U mag=12.320 vegamag); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305</i></p> <p>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</p> <p>Spectral type: B6Iab --> B6 I</p> <p>SED = AV343_STIS_E230M_c2707_sed.fits</p> <p>For exptime=2695.6 s, spectral region: 2800.0 +- 0.5 A achieves SNR=20.0/resel</p> <p>global countrate (brightest segment): 3915.3 cts/s/segment</p> <p>brightest pixel: 0.042 cts/s/pix at 2647.5 A</p> <p>Calculation performed 2020-02-24T17:54:45, v0.4</p> <p>ETC calculations using IUE spectrum yield similar results -- 0.037/3.6k cts/s, S/N~17 near 2800A (1517451)</p> | | | | | | | | | |
| 3 | E230M/270 7 WAVECAL (STIS.sp.14 73723) | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |



Proposal 16375, AV445-COS (4C), scheduling

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 4C; AV445; P/COS approved for submission; P/CP 03/06/21 ; intrev: complete ; P/AF 14/07/21 vcheck; Enter targ name & Inst. & Resp. Sci.; AV445 ; COS ; CP vcheck; ETC numbers entered in APT?; yes ... sed comparisons in AV445_c1291_sed.png and AV445_revised_sed.png vcheck; Any screening violations?; no vcheck; S/N ETC calcs done & documented?; yes vcheck; Field images checked & saved?; yes av445-gsc2-cos.png vcheck; Selected ACQ strategy?; c1291 dispersed vcheck; Possible ACQ or Sci spoilers?; no vcheck; Field BOT clear?; Yes ... Except for target all stars visible in image are found by GSC2 BOT and declared safe. vcheck; Visual BOT check for stars not in catalog?; None found vcheck; Orbit packing finalized?; yes ... using revised exposure estimates obtained c1291 100%, c1611 96%, c1953 124%, c1986 126%. Used auto-adjust so 1st two sub-exposures of c1953 are a bit longer than the next two. vcheck; Buffer times optimized?; Yes vcheck; Verify visit grouping correct; N/A vcheck; Is visit ready for int. review?; yes Allocated COS orbits = 3

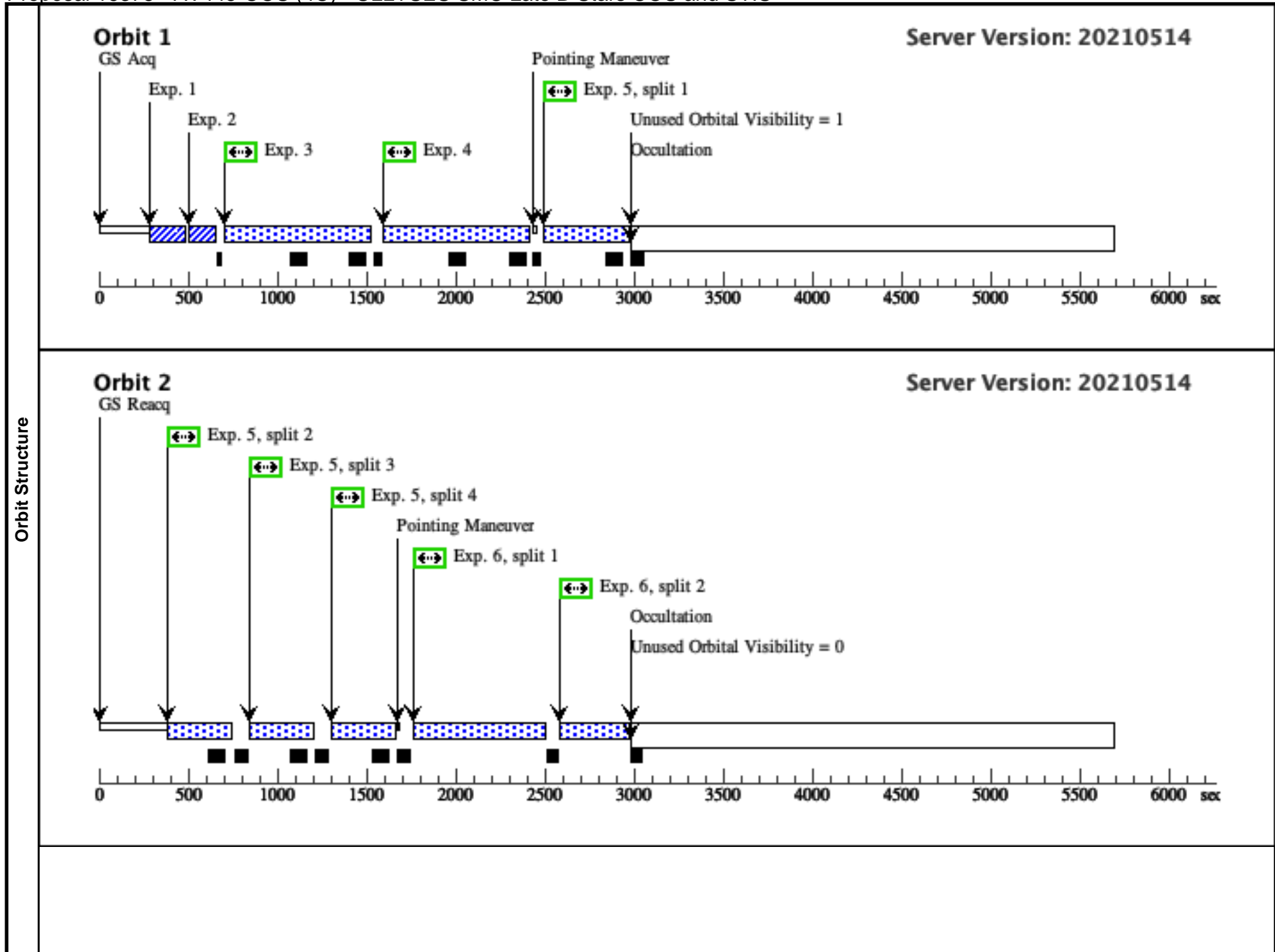
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|--------------------|---------------------------------|--------------------------|---|-----------------------|
| (4) | AV445 | RA: 01 09 15.8186 (17.3159108d) | | V=12.71 | Reference Frame: ICRS |
| | Alt Name1: AZV-445 | Dec: -72 25 14.15 (-72.42060d) | | SpT=B5 (Iab); E(B-V)=0.03; U=11.90; B=12.68; V=12.78; F1160=1.48e-13; I=12.78; F1360=1.90e-13; F1700=1.76e-13; F2200=1.27e-13 | |
| | Alt Name2: SK-138 | Equinox: J2000 | | | |
| <p><i>Comments: AV445 : [2dFS]_2538, AV 445, AzV 445</i></p> <p><i>Previous name : AV 445</i></p> <p><i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>SIMBAD link (AzV 445): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+445&submit=submit+id</i></p> <p><i>SpT = B5 (Iab)</i></p> <p><i>COS/G130M/c1291 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1360 +- 30.0A flux=1.9e-13 Flam)</i></p> <p><i>COS/G160M/c1611 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam)</i></p> <p><i>COS/G185M/c1921 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam)</i></p> <p><i>COS/G185M/c1953 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam)</i></p> <p><i>COS/G185M/c1986 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam)</i></p> <p><i>STIS/E140M/c1425 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1360 +- 30.0A flux=1.9e-13 Flam)</i></p> <p><i>STIS/E230M/c1978 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam)</i></p> <p><i>STIS/E230M/c2707 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam)</i></p> <p><i>Coordinate pedigree: Gaia</i></p> <p><i>Calculation performed 2020-02-24T17:54:20, v0.4</i></p> <hr/> <p><i>tstatus; AV445; P/COS approved for submission; S/STIS approved for submission; P/CP 03/06/21; S/DW 22/05/21 tcheck; APT/SIMBAD target names: ; AV445 'AV 445' ... aka Sk 138 tcheck; Target info verification status?; Good. SIMBAD gives B5 Iab tcheck; Coordinates & P.M. updated?; confirmed tcheck; Adopted SED compared to Observations?; yes ... Default model underestimates mid and NUV fluxes by ~ 10%. Model AV445_revised_sed.fits F1700=1.7e-13, E(B-V)=0.02 does a better overall job of fitting the data, although this might slightly overestimate flux at 1150, so use original model for c1291. sed comparisons in AV445_c1291_sed.png and AV445_revised_sed.png for STIS/E230M, SED2707 agrees reasonably well with IUE over most of E230H/2707 range, also UVB -- mwavg extinction used (MW foreground should dominate, for this small E(B-V))</i></p> <p><i>Category=EXT-STAR</i></p> <p><i>Description=[B3-B5 III-I]</i></p> <p><i>Extended=NO</i></p> | | | | | |

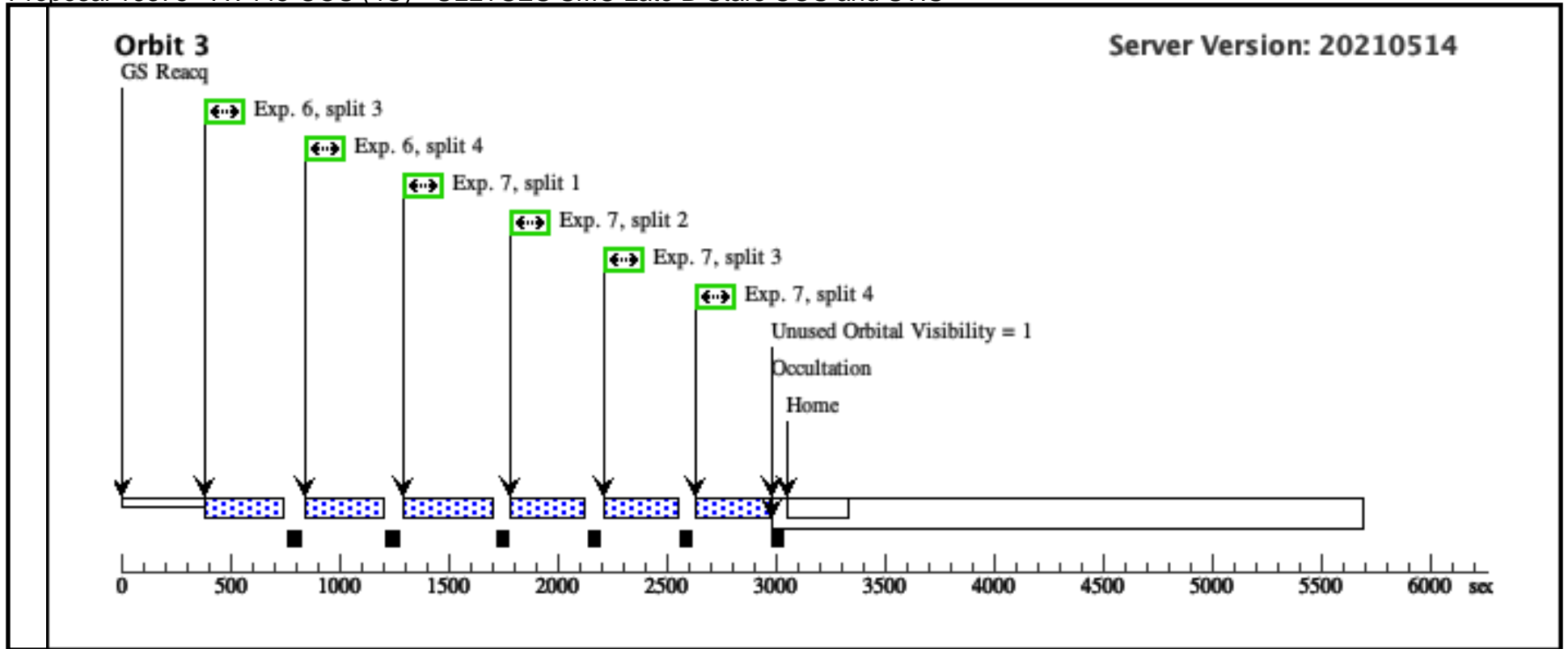
Proposal 16375 - AV445-COS (4C) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit | |
|---|---|--|--------------------------|------------------------------------|---|---------------|--|---------------------------------|-------|--|
| Exposures | 1 | ACQ/PEAK (4) AV445 XD (COS.sa.147 3732) | COS/FUV, ACQ/PEAKXD, PSA | G130M 1291 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | | 0.5 Secs (0.5 Secs) [==>] | [1] | |
| | 2 | ACQ/PEAK (4) AV445 D (COS.sa.147 3732) | COS/FUV, ACQ/PEAKD, PSA | G130M 1291 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | | 0.5 Secs (0.5 Secs) [==>] | [1] | |
| | 3 | G130M/129 (4) AV445 1-3 (COS.sp.147 3734) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=33 3; FP-POS=3 | | | 771. Secs (771 Secs) [==>] | [1] | |
| | <p>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1360 +- 30.0A flux=1.9e-13 Flam); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5 (lab) --> B5 I SED = AV445_COS_G130M_c1291_sed.fits For exptime=1552.8 s, spectral region: 1150.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 2657.5 cts/s/segment brightest pixel: 0.048 cts/s/pix at 1277.0 A Calculation performed 2020-02-24T17:54:25, v0.4</p> | | | | | | | | | |
| | 4 | G130M/129 (4) AV445 1-4 (COS.sp.147 3734) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=33 3; FP-POS=4 | | | 771. Secs (771 Secs) [==>] | [1] | |
| <p>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1360 +- 30.0A flux=1.9e-13 Flam); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None) From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5 (lab) --> B5 I SED = AV445_COS_G130M_c1291_sed.fits For exptime=1552.8 s, spectral region: 1150.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 2657.5 cts/s/segment brightest pixel: 0.048 cts/s/pix at 1277.0 A Calculation performed 2020-02-24T17:54:25, v0.4</p> | | | | | | | | | | |
| 5 | G160M/161 (4) AV445 1 (COS.sp.147 3736) | COS/FUV, TIME-TAG, PSA | G160M 1611 A | BUFFER-TIME=19 4; FP-POS=ALL | | | 304 Secs (1216 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [1] [2] | | |
| <p>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None) From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5 (lab) --> B5 I SED = AV445_COS_G160M_c1611_sed.fits For exptime=1221.5 s, spectral region: 1590.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 2613.3 cts/s/segment brightest pixel: 0.038 cts/s/pix at 1447.0 A Calculation performed 2020-02-24T17:54:28, v0.4</p> | | | | | | | | | | |

Proposal 16375 - AV445-COS (4C) - ULLYSES SMC Late B Stars COS and STIS

| | | | | | | |
|---|--|------------------------|-----------------|------------------------------------|----------------------------------|-----|
| 6 | G185M/195 (4) AV445 3 (COS.sp.147 3737) | COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=77 5; FP-POS=ALL | 346.8 Secs (1437.2 Secs) | |
| | | | | | [==>371.8 Secs (Split 1)] | [2] |
| | | | | | [==>371.8 Secs (Split 2)] | |
| | | | | | [==>(Split 3)] [==>(Split 4)] | [3] |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam); cos,nuv,g185m,c1953,psa,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5 (lab) --> B5 I</i> <i>SED = AV445_COS_G185M_c1953_sed.fits</i> <i>For exptime=1106.2 s, spectral region:</i> <i>1860.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1818.9 cts/s/segment</i> <i>brightest pixel: 0.156 cts/s/pix at 1872.0 A</i> <i>Calculation performed 2020-02-24T17:54:28, v0.4</i></p> | | | | | | |
| 7 | G185M/198 (4) AV445 6 (COS.sp.147 3738) | COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=76 8; FP-POS=ALL | 325 Secs (1300 Secs) | |
| | | | | | [==>(Split 1)] | |
| | | | | | [==>(Split 2)] | |
| | | | | | [==>(Split 3)] [==>(Split 4)] | [3] |
| <p><i>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam); cos,nuv,g185m,c1986,psa,mjd#59305</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B5 (lab) --> B5 I</i> <i>SED = AV445_COS_G185M_c1986_sed.fits</i> <i>For exptime=1069.9 s, spectral region:</i> <i>1980.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 1759.2 cts/s/segment</i> <i>brightest pixel: 0.149 cts/s/pix at 1875.0 A</i> <i>Calculation performed 2020-02-24T17:54:29, v0.4</i></p> | | | | | | |





Proposal 16375, AV445-STIS (4S), completed

Diagnostic Status: No Diagnostics

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

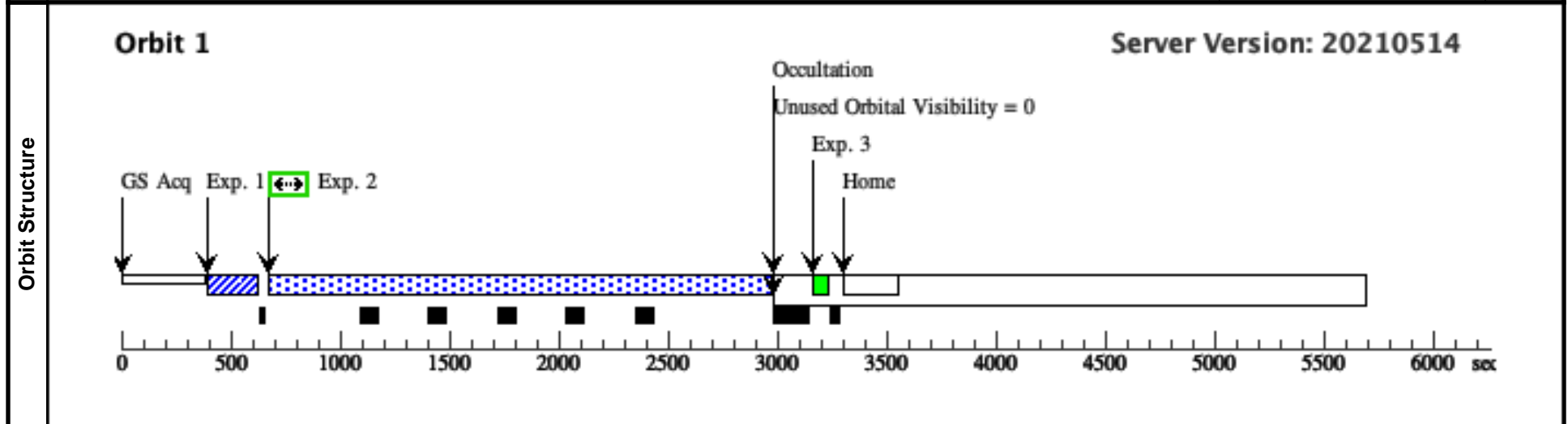
Special Requirements: SCHED 100%

Comments: vstatus; 4S; AV445; S/STIS approved for submission; S/DW 22/05/21 ; intrev:complete ; P/AF 14/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; AV445 ; STIS ; DW
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no -- GSC2 lists as safe, confirmed via ETC
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes av445-gsc2-stis.png, others
vcheck; Selected ACQ strategy?; F28x50LP, 0.5s, I or V band normalization -- should yield S/N~135
vcheck; Possible ACQ or Sci spoilers?; none -- clearance region dominated by saturated core of target
vcheck; Field BOT clear?; yes
vcheck; Visual BOT check for stars not in catalog?; OK ...
Gaia DR3 has star with G=15.7 at 9.4", all others within 10" are much fainter
vcheck; Orbit packing finalized?; yes, get 130% of estimated time
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; N/A
vcheck; Is visit ready for int. review?; Yes
 Allocated STIS orbits = 1

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|-----|--|---------------------------------|--------------------------|---|-----------------------|
| (4) | AV445 | RA: 01 09 15.8186 (17.3159108d) | | V=12.71 | Reference Frame: ICRS |
| | Alt Name1: AZV-445 | Dec: -72 25 14.15 (-72.42060d) | | SpT=B5 (Iab); E(B-V)=0.03; U=11.90; B=12.68; V=12.78; F1160=1.48e-13; I=12.78; F1360=1.90e-13; F1700=1.76e-13; F2200=1.27e-13 | |
| | Alt Name2: SK-138 | Equinox: J2000 | | | |
| | <p><i>Comments: AV445 : [2dFS]_2538, AV 445, AzV 445</i> Previous name : AV 445 Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv SIMBAD link (AzV 445): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=AzV+445&submit=submit+id SpT = B5 (Iab) COS/G130M/c1291 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1360 +- 30.0A flux=1.9e-13 Flam) COS/G160M/c1611 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam) COS/G185M/c1921 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam) COS/G185M/c1953 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1700 +- 5.0A flux=1.8e-13 Flam) COS/G185M/c1986 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam) STIS/E140M/c1425 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux1360 +- 30.0A flux=1.9e-13 Flam) STIS/E230M/c1978 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam) STIS/E230M/c2707 : rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam) Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:20, v0.4</p> <hr/> <p><i>tstatus: AV445; P/COS approved for submission; S/STIS approved for submission; P/CP 03/06/21; S/DW 22/05/21</i> <i>tcheck; APT/SIMBAD target names: ; AV445 'AV 445' ...</i> aka Sk 138 <i>tcheck; Target info verification status?; Good. SIMBAD gives B5 Iab</i> <i>tcheck; Coordinates & P.M. updated?; confirmed</i> <i>tcheck; Adopted SED compared to Observations?; yes ...</i> Default model underestimates mid and NUV fluxes by ~ 10%. Model AV445_revised_sed.fits F1700=1.7e-13, E(B-V)=0.02 does a better overall job of fitting the data, although this might slightly overestimate flux at 1150, so use original model for c1291. sed comparisons in AV445_c1291_sed.png and AV445_revised_sed.png for STIS/E230M, SED2707 agrees reasonably well with IUE over most of E230H/2707 range, also UBV -- mwavg extinction used (MW foreground should dominate, for this small E(B-V)) Category=EXT-STAR Description=[B3-B5 III-I] Extended=NO</p> | | | | |

Proposal 16375 - AV445-STIS (4S) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|--|--|-----------|----------------------------------|-----------------|------------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.147 3741) | (4) AV445 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| 2 | E230M/270 7 (STIS.sp.14 73742) | (4) AV445 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=31 5 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <p>Comments: rn-max(ck04models(B5I,Teff=13600,metallicity=0.004,logG=2.5) (extinction smcbar=0.030), flux2200 +- 5.0A flux=1.3e-13 Flam); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B5 (lab) --> B5 I SED = AV445_STIS_E230M_c2707_sed.fits For exptime=1681.0 s, spectral region: 2800.0 +- 0.5 A achieves SNR=20.0/resel global countrate (brightest segment): 4741.8 cts/s/segment brightest pixel: 0.062 cts/s/pix at 2648.0 A Calculation performed 2020-02-24T17:54:33, v0.4</p> <p>ETC calculations using IUE spectrum yield similar results -- 0.069/4.8k cts/s, S/N~24 near 2800A (1517448)</p> | | | | | | | | | |
| 3 | E230M/270 7 WAVECAL (STIS.sp.14 73742) | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |

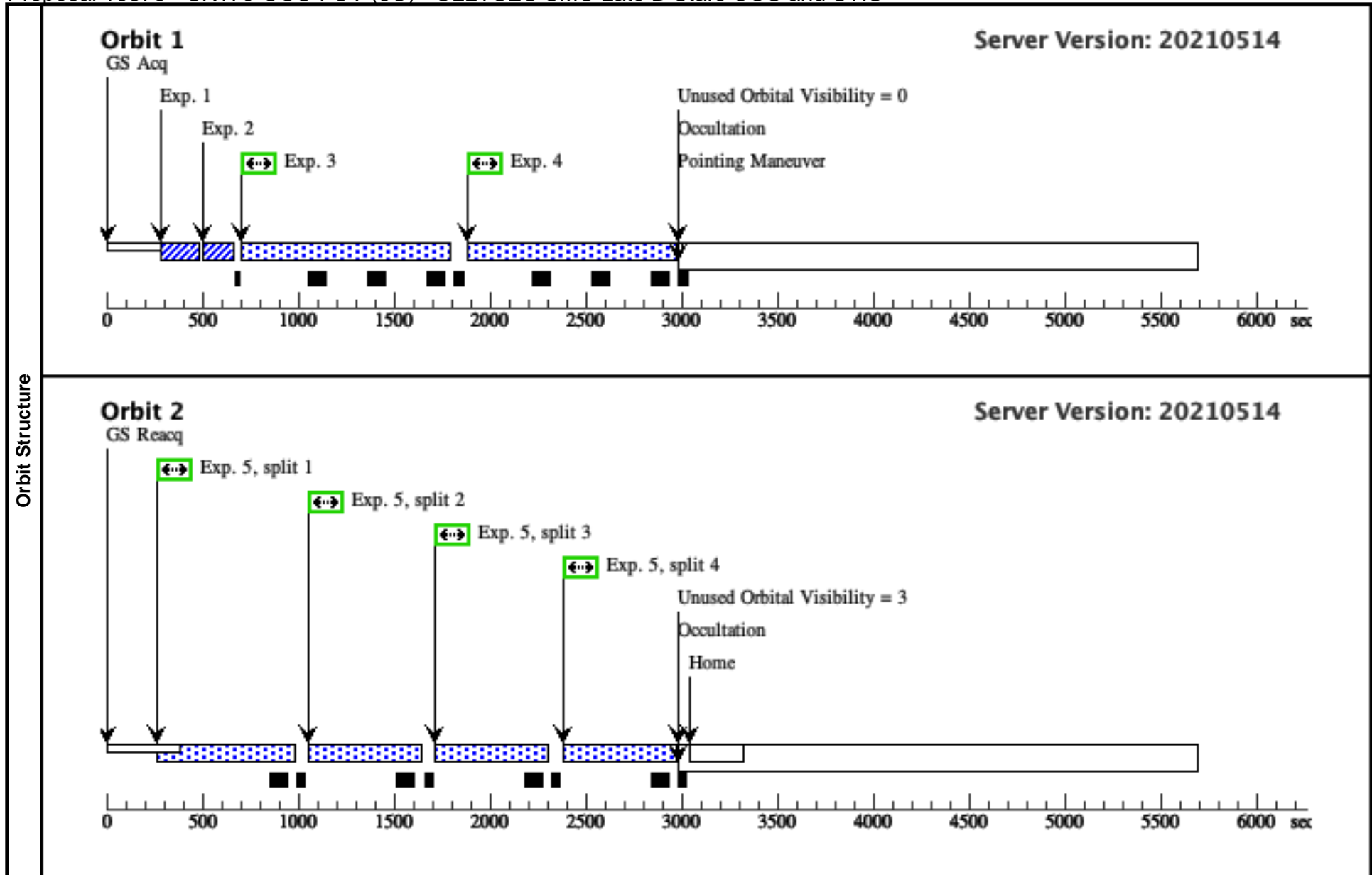


| | |
|--------------|--|
| Visit | <p>Proposal 16375, SK179-COS-FUV (5C), completed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 5C; SK179; P/COS approved for submission; P/RS 17/06/21 ; intrev: complete ; P/AF 14/07/21 vcheck; Enter targ name & Inst. & Resp. Sci.; SK179 ; COS ; RS vcheck; ETC numbers entered in APT?; Yes vcheck; Any screening violations?; No vcheck; S/N ETC calcs done & documented?; N/A vcheck; Field images checked & saved?; Yes vcheck; Selected ACQ strategy?; Yes vcheck; Possible ACQ or Sci spoilers?; No vcheck; Field BOT clear?; GSC BOT finds one unknown, but it is the target vcheck; Visual BOT check for stars not in catalog?; 2nd brightest star in field may have a fainter companion not in GSC2, but this is in the BOA region and fainter than safe star in PSA region - no coverage by Zaritsky vcheck; Orbit packing finalized?; Yes vcheck; Buffer times optimized?; Yes vcheck; Verify visit grouping correct; N/A vcheck; Is visit ready for int. review?; Yes Allocated COS orbits = 4 (2 FUV + 2 NUV)</i></p> |
|--------------|--|

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|--|-------------------------------------|---|--------------------------|---|-----------------------|
| | (5) | SK179 Alt Name1: M2002-SMC-82928 | RA: 01 28 27.9861 (22.1166088d) Dec: -72 46 55.58 (-72.78211d) Equinox: J2000 | | V=13.06 SpT=B6 I; E(B-V)=-0.03; U=12.2; B=12.97; V=13.09; R=13.32; I=13.31 | Reference Frame: ICRS |
| | <p><i>Comments: SK179 : [M2002]_82928, Sk 179, SK 179 Previous name : Sk 179 Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv SIMBAD link (SK 179): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=SK+179&submit=submit+id SpT = B6 I COS/G130M/c1291 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) COS/G160M/c1611 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) COS/G185M/c1921 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) COS/G185M/c1953 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) COS/G185M/c1986 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) STIS/E140M/c1425 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) STIS/E230M/c1978 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) STIS/E230M/c2707 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag) Coordinate pedigree: Gaia Calculation performed 2020-02-24T17:54:45, v0.4</i></p> <hr/> <p><i>tstatus; SK179; P/COS approved for submission; S/STIS approved for submission; P/CP 26/06/21; S/DW 22/05/21 tcheck; APT/SIMBAD target names: ; SK179 'Sk 179' tcheck; Target info verification status?; Good tcheck; Coordinates & P.M. updated?; Verified (PM not included) tcheck; Adopted SED compared to Observations?; Yes - photometry is poor for this object, nothing from Zaritsky for this field, negative E(B-V) is suspicious, and source of U mag is unclear, but adding dust makes fit to photometry worse. for STIS/E230M, new G430L spectrum agrees well with UVB -- model slightly overestimates Balmer jump -- SED2707 agrees reasonably well with G430L below Balmer jump -- G430L acq has only target in acq box Category=EXT-STAR Description=[B6-B9.5 III-I] Extended=NO</i></p> | | | | | |

Proposal 16375 - SK179-COS-FUV (5C) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit | |
|---|---|--|--------------------------|------------------------------------|---|---------------|--|---------------------------------|-------|--|
| Exposures | 1 | ACQ/PEAK (5) SK179 XD (COS.sa.152 0430) | COS/FUV, ACQ/PEAKXD, PSA | G130M 1291 A | CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH | | | 1 Secs (1 Secs) [==>] | [1] | |
| | 2 | ACQ/PEAK (5) SK179 D (COS.sa.152 0430) | COS/FUV, ACQ/PEAKD, PSA | G130M 1291 A | CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH | | | 1 Secs (1 Secs) [==>] | [1] | |
| | 3 | G130M/129 (5) SK179 1-3 (COS.sp.152 0431) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=31 0; FP-POS=3 | | | 1041 Secs (1041 Secs) [==>] | [1] | |
| | <p><i>Comments: rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag); cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B6 I --> B6 I</i> <i>SED = SK179_COS_G130M_c1291_sed.fits</i> <i>For exptime=2084.7 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 2033.8 cts/s/segment</i> <i>brightest pixel: 0.036 cts/s/pix at 1277.0 A</i> <i>Calculation performed 2020-02-24T17:54:49, v0.4</i></p> | | | | | | | | | |
| | 4 | G130M/129 (5) SK179 1-4 (COS.sp.152 0431) | COS/FUV, TIME-TAG, PSA | G130M 1291 A | BUFFER-TIME=31 0; FP-POS=4 | | | 1041 Secs (1041 Secs) [==>] | [1] | |
| <p><i>Comments: rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag); cos.fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B6 I --> B6 I</i> <i>SED = SK179_COS_G130M_c1291_sed.fits</i> <i>For exptime=2084.7 s, spectral region:</i> <i>1150.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 2033.8 cts/s/segment</i> <i>brightest pixel: 0.036 cts/s/pix at 1277.0 A</i> <i>Calculation performed 2020-02-24T17:54:49, v0.4</i></p> | | | | | | | | | | |
| 5 | G160M/161 (5) SK179 1 (COS.sp.152 0432) | COS/FUV, TIME-TAG, PSA | G160M 1611 A | BUFFER-TIME=42 9; FP-POS=ALL | | | 539 Secs (2156 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [2] | | |
| <p><i>Comments: rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag); cos.fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)</i> <i>From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>Spectral type: B6 I --> B6 I</i> <i>SED = SK179_COS_G160M_c1611_sed.fits</i> <i>For exptime=1600.8 s, spectral region:</i> <i>1590.0 +- 0.5 A achieves SNR=30.0/resel</i> <i>global countrate (brightest segment): 2031.6 cts/s/segment</i> <i>brightest pixel: 0.030 cts/s/pix at 1447.0 A</i> <i>Calculation performed 2020-02-24T17:54:52, v0.4</i></p> | | | | | | | | | | |

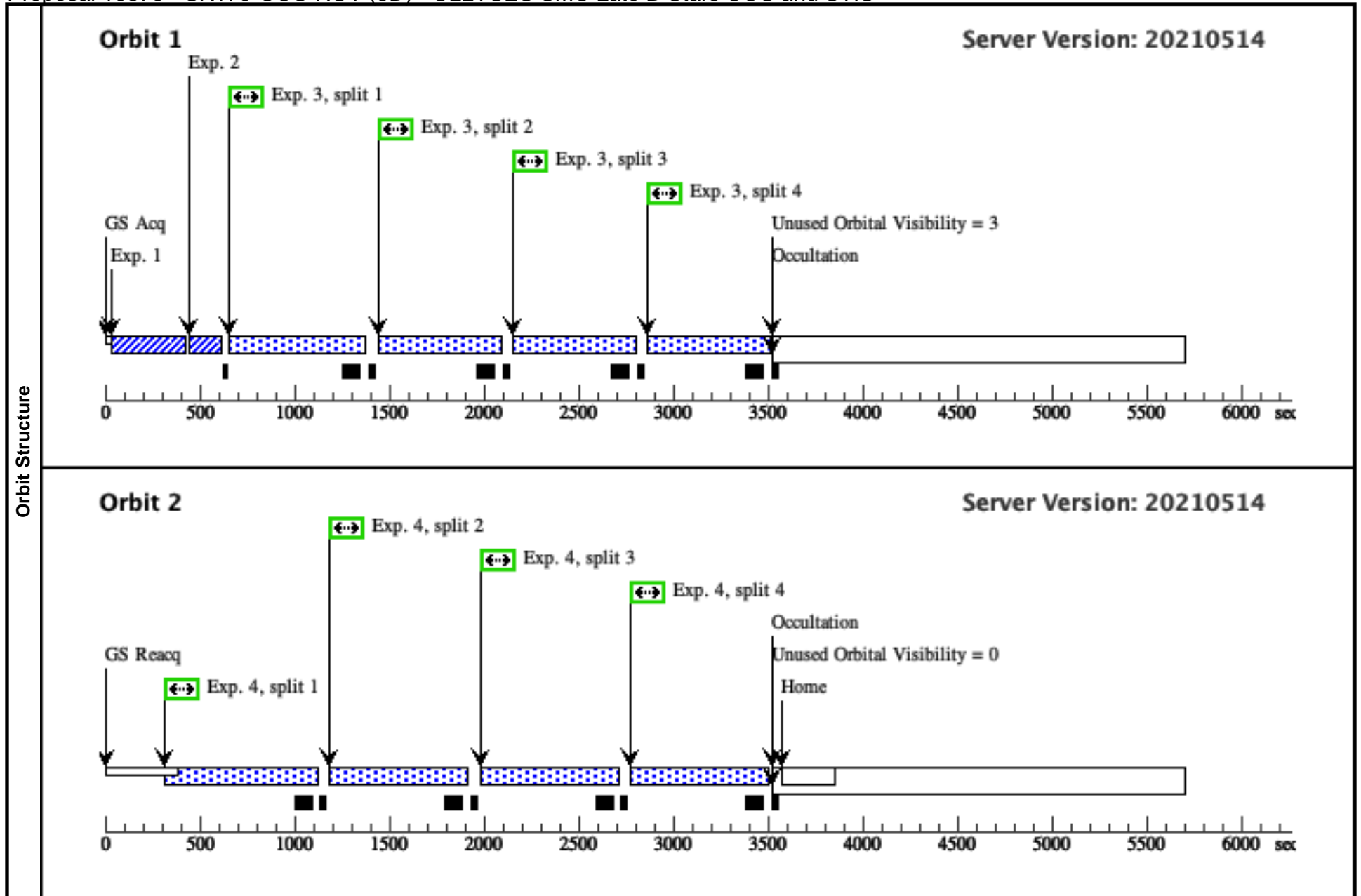


| | |
|--------------|---|
| Visit | <p>Proposal 16375, SK179-COS-NUV (5D), completed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/NUV</p> <p>Special Requirements: (none)</p> <p><i>Comments: vstatus; 5D; SK179; P/COS approved for submission; P/RS 17/06/21 ; intrev: complete; P/AF 14/07/21</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; SK179 ; COS ; RS</i></p> <p><i>vcheck; ETC numbers entered in APT?; Yes</i></p> <p><i>vcheck; Any screening violations?; No</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; N/A</i></p> <p><i>vcheck; Field images checked & saved?; Yes</i></p> <p><i>vcheck; Selected ACQ strategy?; Yes</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; No</i></p> <p><i>vcheck; Field BOT clear?; GSC BOT finds one unknown, but it is the target</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; 2nd brightest star in field may have a fainter companion not in GSC2, but this is in the BOA region and fainter than safe star in PSA region - no coverage by Zaritsky</i></p> <p><i>vcheck; Orbit packing finalized?; Yes</i></p> <p><i>vcheck; Buffer times optimized?; Yes</i></p> <p><i>vcheck; Verify visit grouping correct; N/A</i></p> <p><i>vcheck; Is visit ready for int. review?; Yes</i></p> <p><i>Allocated COS orbits = 4 (2 FUV + 2 NUV)</i></p> |
|--------------|---|

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|----------|--|---------------------------------|---------------------------------|--|-----------------------|
| | (5) | SK179 | RA: 01 28 27.9861 (22.1166088d) | | V=13.06 | Reference Frame: ICRS |
| | | Alt Name1: M2002-SMC-82928 | Dec: -72 46 55.58 (-72.78211d) | | SpT=B6 I; E(B-V)=-0.03; U=12.2; B=12.97; V=13.09; R=13.32; I=13.31 | |
| | | <p><i>Comments: SK179 : [M2002]_82928, Sk 179, SK 179</i></p> <p><i>Previous name : Sk 179</i></p> <p><i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i></p> <p><i>SIMBAD link (SK 179): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=SK+179&submit=submit+id</i></p> <p><i>SpT = B6 I</i></p> <p><i>COS/G130M/c1291 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>COS/G160M/c1611 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>COS/G185M/c1921 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>COS/G185M/c1953 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>COS/G185M/c1986 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>STIS/E140M/c1425 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>STIS/E230M/c1978 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>STIS/E230M/c2707 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i></p> <p><i>Coordinate pedigree: Gaia</i></p> <p><i>Calculation performed 2020-02-24T17:54:45, v0.4</i></p> <hr/> <p><i>tstatus; SK179; P/COS approved for submission; S/STIS approved for submission; P/CP 26/06/21; S/DW 22/05/21</i></p> <p><i>tcheck; APT/SIMBAD target names: ; SK179 'Sk 179'</i></p> <p><i>tcheck; Target info verification status?; Good</i></p> <p><i>tcheck; Coordinates & P.M. updated?; Verified (PM not included)</i></p> <p><i>tcheck; Adopted SED compared to Observations?; Yes - photometry is poor for this object, nothing from Zaritsky for this field, negative E(B-V) is suspicious, and source of U mag is unclear, but adding dust makes fit to photometry worse.</i></p> <p><i>for STIS/E230M, new G430L spectrum agrees well with UVB -- model slightly overestimates Balmer jump -- SED2707 agrees reasonably well with G430L below Balmer jump -- G430L acq has only target in acq box</i></p> <p><i>Category=EXT-STAR</i></p> <p><i>Description=[B6-B9.5 III-I]</i></p> <p><i>Extended=NO</i></p> | | | | |

Proposal 16375 - SK179-COS-NUV (5D) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|--|--|-------------------------------------|---------------------------------------|------------------------------------|------------------------------------|---------------|--|--|-------|
| Exposures | 1 | ACQ/PEAK XD (COS.sa.152 0434) | (5) SK179 COS/NUV, ACQ/PEAKXD, PSA | G185M 1941 A | | | | 12 Secs (12 Secs) [==>] | [1] |
| | 2 | ACQ/PEAK D (COS.sa.152 0435) | (5) SK179 COS/NUV, ACQ/PEAKD, PSA | G185M 1941 A | NUM-POS=5; STEP-SIZE=0.9 | | | 4 Secs (4 Secs) [==>] | [1] |
| | 3 | G185M/198 6 (COS.sp.152 0436) | (5) SK179 COS/NUV, TIME-TAG, PSA | G185M 1986 A | BUFFER-TIME=52 2; FP-POS=ALL | | | 632 Secs (2528 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [1] |
| | <p>Comments: rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag); cos,nuv,g185m,c1986,psa,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B6 I --> B6 I SED = SK179_COS_G185M_c1986_sed.fits For exptime=1345.9 s, spectral region: 1980.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1588.1 cts/s/segment brightest pixel: 0.119 cts/s/pix at 1875.0 A Calculation performed 2020-02-24T17:54:53, v0.4</p> | | | | | | | | |
| 4 | G185M/195 3 (COS.sp.152 0438) | (5) SK179 COS/NUV, TIME-TAG, PSA | G185M 1953 A | BUFFER-TIME=60 8; FP-POS=ALL | | | 718 Secs (2872 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>(Split 4)] | [2] | |
| <p>Comments: rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag); cos,nuv,g185m,c1953,psa,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B6 I --> B6 I SED = SK179_COS_G185M_c1953_sed.fits For exptime=1517.8 s, spectral region: 1860.0 +- 0.5 A achieves SNR=30.0/resel global countrate (brightest segment): 1575.1 cts/s/segment brightest pixel: 0.114 cts/s/pix at 1872.0 A Calculation performed 2020-02-24T17:54:53, v0.4</p> | | | | | | | | | |



Proposal 16375, SK179-STIS (5S), completed

Diagnostic Status: No Diagnostics

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

Special Requirements: SCHED 100%

Comments: vstatus; 5S; SK179; S/STIS approved for submission; S/DW 22/05/21 ; intrev:complete; P/AF 14/07/21
vcheck; Enter targ name & Inst. & Resp. Sci.; SK179 ; STIS ; DW
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no -- GSC2 lists 1 unknown (target) -- cleared via ETC
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; F28x50LP, 0.5s should yield S/N~110
vcheck; Possible ACQ or Sci spoilers?; no -- previous G430L acq shows no other objects in 5"x5" acq box
vcheck; Field BOT clear?; yes -- clearance region is dominated by saturated core of target
vcheck; Visual BOT check for stars not in catalog?; yes ...
Gaia DR3 has star with G=15.3 at 8.1", all others within 10" are much fainter
vcheck; Orbit packing finalized?; yes, get 90% of estimated time in a 1 orbit visit
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; n/a
vcheck; Is visit ready for int. review?; yes
 Allocated STIS orbits = 1

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|--------------------------|---|-----------------------|
| (5) | SK179 Alt Name1: M2002- SMC-82928 | RA: 01 28 27.9861 (22.1166088d) Dec: -72 46 55.58 (-72.78211d) Equinox: J2000 | | V=13.06 SpT=B6 I; E(B-V)=-0.03; U=12.2; B=12.97; V=13.09; R=13.32; I=13.31 | Reference Frame: ICRS |
| <p><i>Comments: SK179 : [M2002]_82928, Sk 179, SK 179</i> <i>Previous name : Sk 179</i> <i>Input file: SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv</i> <i>SIMBAD link (SK 179): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=SK+179&submit=submit+id</i> <i>SpT = B6 I</i> <i>COS/G130M/c1291 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>COS/G160M/c1611 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>COS/G185M/c1921 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>COS/G185M/c1953 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>COS/G185M/c1986 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>STIS/E140M/c1425 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>STIS/E230M/c1978 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>STIS/E230M/c2707 : rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag)</i> <i>Coordinate pedigree: Gaia</i> <i>Calculation performed 2020-02-24T17:54:45, v0.4</i></p> <hr/> <p><i>tstatus; SK179; P/COS approved for submission; S/STIS approved for submission; P/CP 26/06/21; S/DW 22/05/21</i> <i>tcheck; APT/SIMBAD target names: ; SK179 'Sk 179'</i> <i>tcheck; Target info verification status?; Good</i> <i>tcheck; Coordinates & P.M. updated?; Verified (PM not included)</i> <i>tcheck; Adopted SED compared to Observations?; Yes - photometry is poor for this object, nothing from Zaritsky for this field, negative E(B-V) is suspicious, and source of U mag is unclear, but adding dust makes fit to photometry worse.</i> <i>for STIS/E230M, new G430L spectrum agrees well with UVB -- model slightly overestimates Balmer jump -- SED2707 agrees reasonably well with G430L below Balmer jump -- G430L acq has only target in acq box</i> Category=EXT-STAR Description=[B6-B9.5 III-I] Extended=NO</p> | | | | | |

Proposal 16375 - SK179-STIS (5S) - ULLYSES SMC Late B Stars COS and STIS

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|--|--------------------------------|-----------|----------------------------------|-----------------|------------------------------------|---------------|--------|---------------------------------|-------|
| 1 | ACQ (STIS.ta.147 3752) | (5) SK179 | STIS/CCD, ACQ, F28X50LP | MIRROR | | | | 0.5 Secs (0.5 Secs) [==>] | [1] |
| 2 | E230M/270 7 (STIS.sp.14 73754) | (5) SK179 | STIS/NUV-MAMA, TIME-TAG, 0.2X0.2 | E230M 2707 A | WAVECAL=NO; BUFFER-TIME=36 5 | | | 2183 Secs (2183 Secs) [==>] | [1] |
| <p>Comments: rn(ck04models(B6I,Teff=12826,metallicity=0.004,logG=2.5), johnson U mag=12.240 vegamag); stis,nuvmama,e230m,c2707,0.2x0.2,mjd#59305 From file SMC_2020Feb20/input/SMC_all_do1_NewCoords_pids.csv Spectral type: B6 I --> B6 I SED = SK179_STIS_E230M_c2707_sed.fits For exptime=2410.5 s, spectral region: 2800.0 +- 0.5 A achieves SNR=20.0/resel global countrate (brightest segment): 4096.8 cts/s/segment brightest pixel: 0.047 cts/s/pix at 2647.5 A Calculation performed 2020-02-24T17:54:58, v0.4</p> <p>ETC calculations using IUE spectrum yield similar results -- 0.049/4.2k cts/s, S/N~20 near 2800A (1517449)</p> | | | | | | | | | |
| 3 | E230M/270 7 WAVECA L | WAVE | STIS/NUV-MAMA, ACCUM, 0.2X0.2 | E230M 2707 A | | | | [==>] | [1] |

