16272 - The multiplicity and properties of the LMC WC stars: the immediate progenitors of black holes and stripped supernovae

Cycle: 28, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HD-32257	COS/FUV COS/NUV	2	11-Oct-2021 14:00:42.0	yes
23	(1) HD-32257	COS/FUV COS/NUV	2	11-Oct-2021 14:00:44.0	yes
02	(2) HD-32125	COS/FUV COS/NUV	2	11-Oct-2021 14:00:45.0	yes
03	(3) HD-32228 (22) ACQ-TARGET-HD-32228	STIS/CCD STIS/FUV-MAMA	1	11-Oct-2021 14:00:46.0	yes
04	(4) BREY-16A	COS/FUV	1	11-Oct-2021 14:00:47.0	yes
05	(5) HD-35517	STIS/CCD STIS/FUV-MAMA	1	11-Oct-2021 14:00:48.0	yes
06	(6) HD-36156	COS/FUV	1	11-Oct-2021 14:00:50.0	yes
07	(7) HD-36521	STIS/CCD STIS/FUV-MAMA	1	11-Oct-2021 14:00:50.0	yes
08	(8) HD-37026	COS/FUV COS/NUV	1	11-Oct-2021 14:00:52.0	yes
58	(8) HD-37026	COS/FUV COS/NUV	1	11-Oct-2021 14:00:54.0	yes
09	(9) HD-37248	COS/FUV	1	11-Oct-2021 14:00:55.0	yes
11	(11) HD-269818	COS/FUV COS/NUV	1	11-Oct-2021 14:00:57.0	yes
12	(12) HD-38030	STIS/CCD STIS/FUV-MAMA	1	11-Oct-2021 14:00:57.0	yes
13	(13) BREY-70	COS/FUV	1	11-Oct-2021 14:00:59.0	yes
14	(14) BREY-70A	COS/FUV COS/NUV	2	11-Oct-2021 14:01:00.0	yes
22	(14) BREY-70A	COS/FUV COS/NUV	2	11-Oct-2021 14:01:02.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
15	(15) HD-269888	COS/FUV COS/NUV	2	11-Oct-2021 14:01:04.0	yes
16	(16) HD-269891	COS/FUV COS/NUV	1	11-Oct-2021 14:01:06.0	yes
17	(17) RMC-140	STIS/CCD STIS/FUV-MAMA	1	11-Oct-2021 14:01:06.0	yes
59	(17) RMC-140	STIS/CCD STIS/FUV-MAMA	1	11-Oct-2021 14:01:07.0	yes
19	(19) BREY-90A	COS/FUV COS/NUV	2	11-Oct-2021 14:01:08.0	yes
20	(20) HD-38448	COS/FUV COS/NUV	1	11-Oct-2021 14:01:10.0	yes
21	(21) BREY-95A	STIS/CCD STIS/FUV-MAMA	1	11-Oct-2021 14:01:11.0	yes

30 Total Orbits Used

ABSTRACT

Wolf-Rayet stars of the carbon sequence (WC) represent the final evolutionary phase of very massive stars. They are the presumed immediate progenitors of black holes, stripped supernovae (Ibc SNe), and long duration gamma-ray bursts. With 28 WC stars, the Large Magellanic Cloud (LMC) is the only galaxy that hosts a resolvable and statistically significant population of WC stars at subsolar metallicity. Despite this, the physical parameters of most remain unknown, and, in stark contrast to prediction: only 3/28 of the LMC WC stars have been confirmed as binaries. However, previous studies were severely insensitive to year-long orbital periods that WC binaries are expected to exhibit. We propose to obtain single-epoch high-resolution COS/FUV spectra to employ a novel method for binary detection and to derive the wind parameters of the WC population and their potential companions. This will serve as an indispensable step for establishing the highly uncertain onward evolution of very massive stars in the era of gravitational-wave astronomy.

OBSERVING DESCRIPTION

We aim to obtain single-snapshot FUV/NUV spectra of 28 WC stars in the Large Magellanic Cloud using three filters: G....

Finding charts for all stars in our proposal are available in the online version of Breysacher et al. 1999, A&AS, 137, 117 , or in the following link: https://aas.aanda.org/articles/aas/full/1999/10/ds1668/node4.html#SECTION00040000000000000000

Visit

Proposal 16272, Visit 01, failed Mon Oct 11 18:01:11 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: HD 32257. Aimed S/N > ~ 30 in continuum

Normalised according to measured UV flux at ~1300Ang and published extinction (see description in target/exposures)

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 01) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 01) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Visit 01) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-32257	RA: 04 56 2.8982 (74.0120758d) Dec: -69 27 21.55 (-69.45599d) Equinox: J2000	Proper Motion RA: 3.1782503132579947E-4 sec of time/yr Proper Motion Dec: 1.32E-4 arcsec/yr Epoch of Position: 2015.5	V=14.23 U=13.441	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
Gaia DR2 4655173597434764800, G=15.1 (sep ~10")

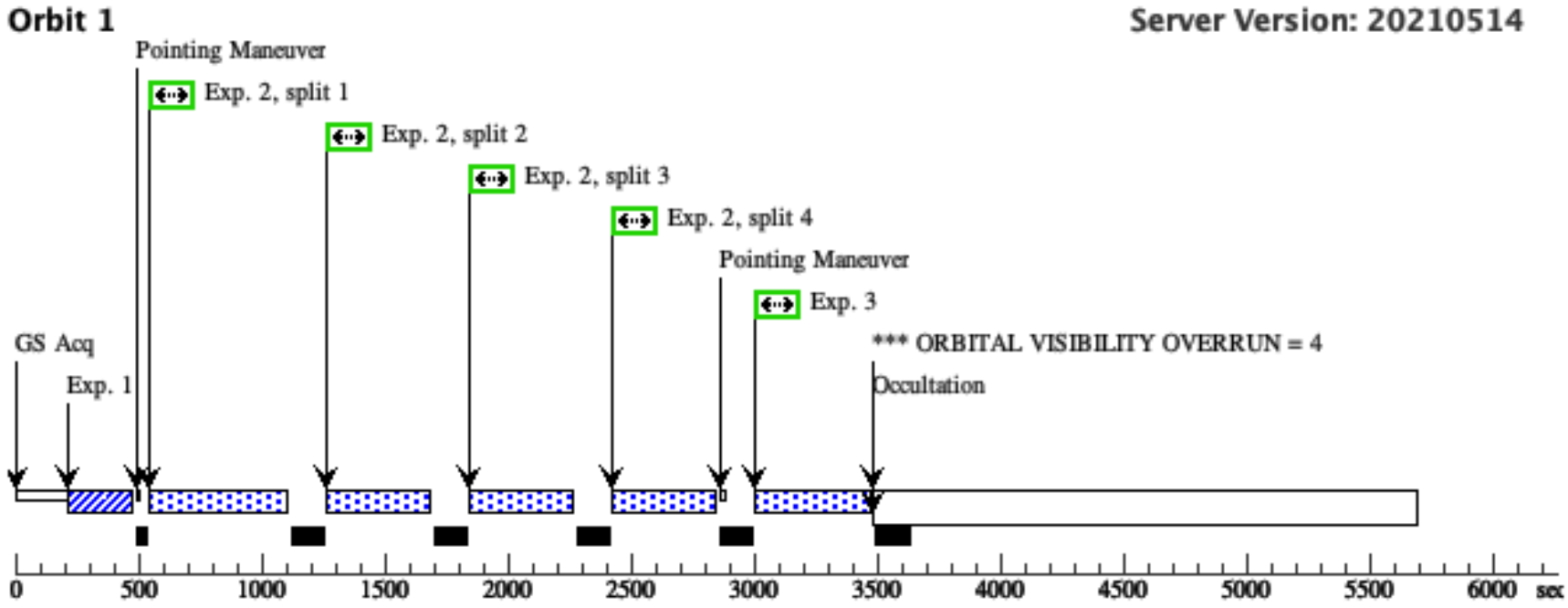
Extinction EBV = 0.07 + 0.08 = 0.15; https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf

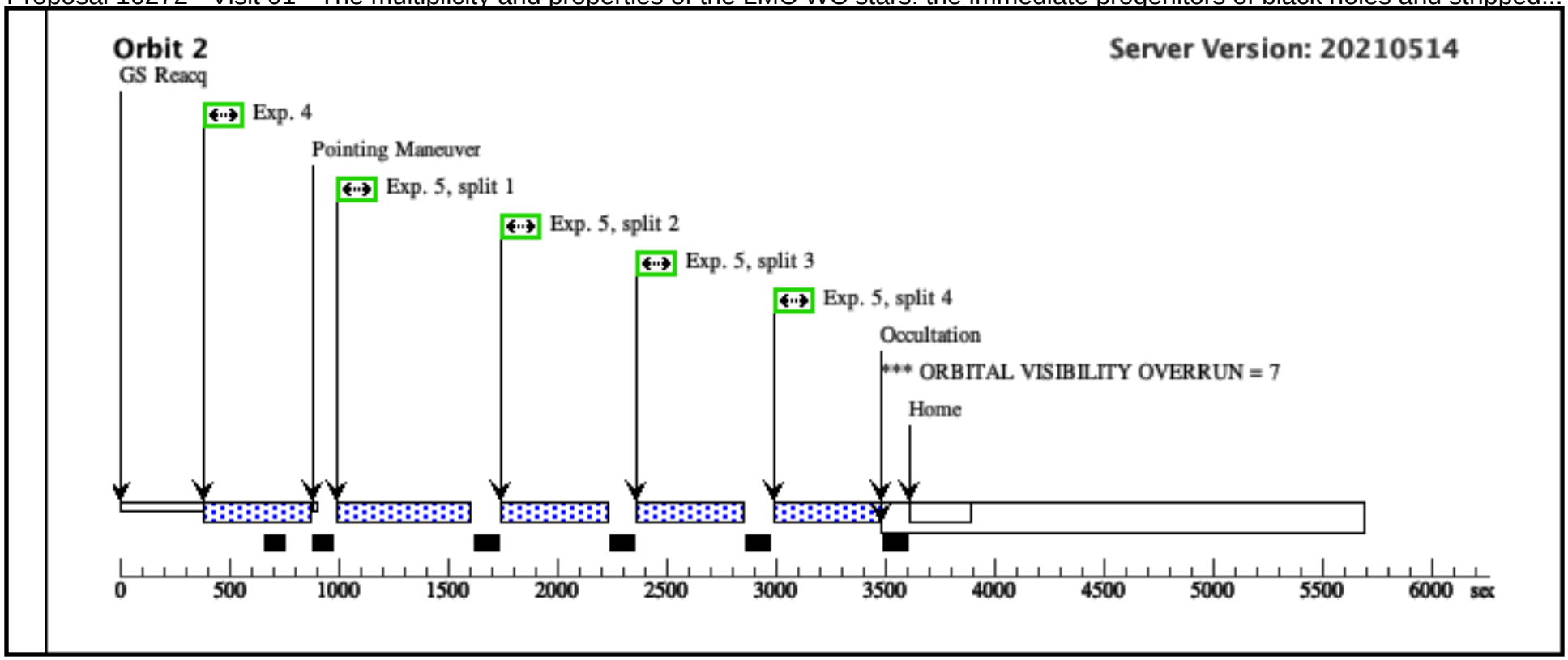
FOS/BL G130H observations, cont. flux (lam~1300Ang) ~ 2E-13; peak flux at 1171, 1555Ang, ~1E-12
No WFC magnitudes available
No WFC image available
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.145 1417)	(1) HD-32257	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				11.5 Secs (11.5 Secs) *[==>]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15, as derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf*								
2	(COS.sp.145 1434)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=298; FP-POS=ALL			300 Secs (1484 Secs) *[==>371.0 Secs (Split 1)]* *[==>371.0 Secs (Split 2)]* *[==>371.0 Secs (Split 3)]* *[==>371.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 931.4726/4 for S/N ~10 at 1100Ang*								
3	(COS.sp.145 1431)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=235; FP-POS=3			250 Secs (321 Secs) *[==>321.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 500/2 for S/N ~30 at 1250Ang*								
4	(COS.sp.145 1428)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=235; FP-POS=4			250 Secs (433 Secs) *[==>433.0 Secs]*	*[2]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 500/2 for S/N ~30 at 1250Ang*								
5	(COS.sp.145 1430)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=428; FP-POS=ALL			250 Secs (1732 Secs) *[==>433.0 Secs (Split 1)]* *[==>433.0 Secs (Split 2)]* *[==>433.0 Secs (Split 3)]* *[==>433.0 Secs (Split 4)]*	*[2]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1000/4 for S/N ~30 at 1500Ang*								

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 4
Pointing Maneuver
Exp. 5, split 1
Exp. 5, split 2
Exp. 5, split 3
Exp. 5, split 4
Occultation
*** ORBITAL VISIBILITY OVERRUN = 7
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, VISIT 1 repeat (23), completed Mon Oct 11 18:01:11 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: HD 32257. Aimed S/N > ~ 30 in continuum

Normalised according to measured UV flux at ~1300Ang and published extinction (see description in target/exposures)

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(VISIT 1 repeat (23)) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(VISIT 1 repeat (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(VISIT 1 repeat (23)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HD-32257	RA: 04 56 2.8982 (74.0120758d) Dec: -69 27 21.55 (-69.45599d) Equinox: J2000	Proper Motion RA: 3.1782503132579947E-4 sec of time/yr Proper Motion Dec: 1.32E-4 arcsec/yr Epoch of Position: 2015.5	V=14.23 U=13.441	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
Gaia DR2 4655173597434764800, G=15.1 (sep ~10")

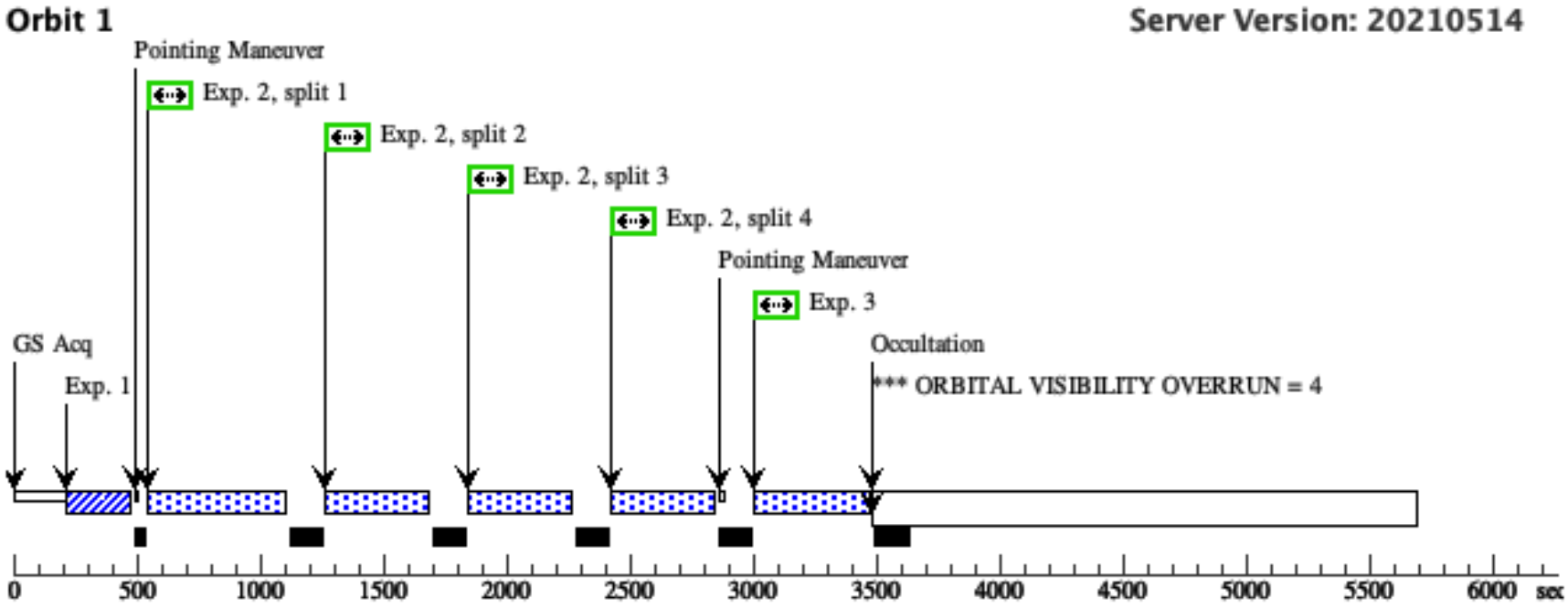
Extinction EBV = 0.07 + 0.08 = 0.15; https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf

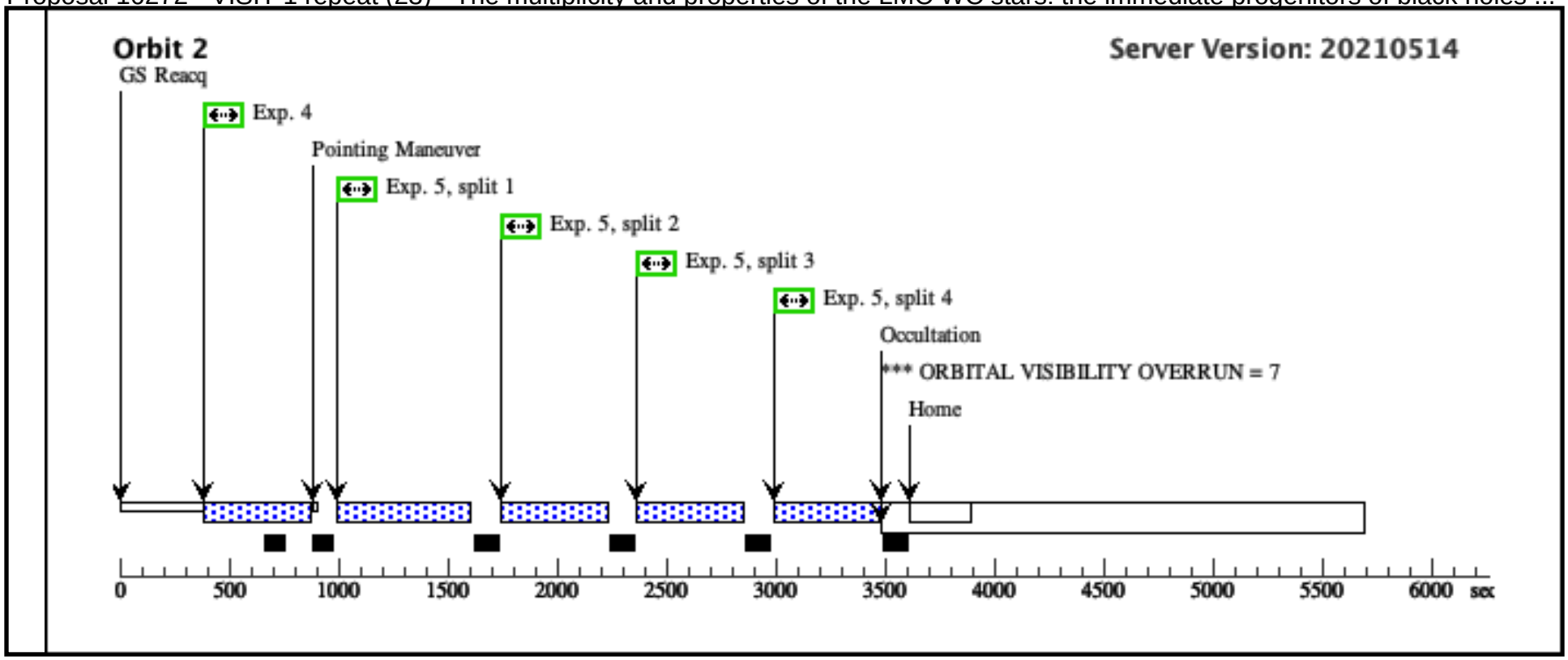
FOS/BL G130H observations, cont. flux (lam~1300Ang) ~ 2E-13; peak flux at 1171, 1555Ang, ~1E-12
No WFC magnitudes available
No WFC image available
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.145 1417)	(1) HD-32257	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				11.5 Secs (11.5 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15, as derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf*								
2	(COS.sp.145 1434)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=298; FP-POS=ALL			300 Secs (1484 Secs) *[==>371.0 Secs (Split 1)]* *[==>371.0 Secs (Split 2)]* *[==>371.0 Secs (Split 3)]* *[==>371.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 931.4726/4 for S/N ~10 at 1100Ang*								
3	(COS.sp.145 1431)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=235; FP-POS=3			250 Secs (321 Secs) *[==>321.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 500/2 for S/N ~30 at 1250Ang*								
4	(COS.sp.145 1428)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=235; FP-POS=4			250 Secs (433 Secs) *[==>433.0 Secs]*	***[2]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 500/2 for S/N ~30 at 1250Ang*								
5	(COS.sp.145 1430)	(1) HD-32257	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=428; FP-POS=ALL			250 Secs (1732 Secs) *[==>433.0 Secs (Split 1)]* *[==>433.0 Secs (Split 2)]* *[==>433.0 Secs (Split 3)]* *[==>433.0 Secs (Split 4)]*	***[2]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1000/4 for S/N ~30 at 1500Ang*								

Orbit Structure




Orbit 2
Server Version: 20210514
GS Reacq
Exp. 4
Pointing Maneuver
Exp. 5, split 1
Exp. 5, split 2
Exp. 5, split 3
Exp. 5, split 4
Occultation
*** ORBITAL VISIBILITY OVERRUN = 7
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 02, scheduling Mon Oct 11 18:01:11 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: HD 32125. Aimed S/N > ~ 30 in continuum

Normalised according to measured UV flux at ~1300Ang and published extinction (see description in target/exposures)

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 02) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	HD-32125	RA: 04 56 11.1002 (74.0462508d) Dec: -66 17 33.05 (-66.29251d) Equinox: J2000	Proper Motion RA: 2.4854870738250567E-4 sec of time/yr Proper Motion Dec: 2.47E-4 arcsec/yr Epoch of Position: 2015.5	V=14.33 U=13.704	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
None

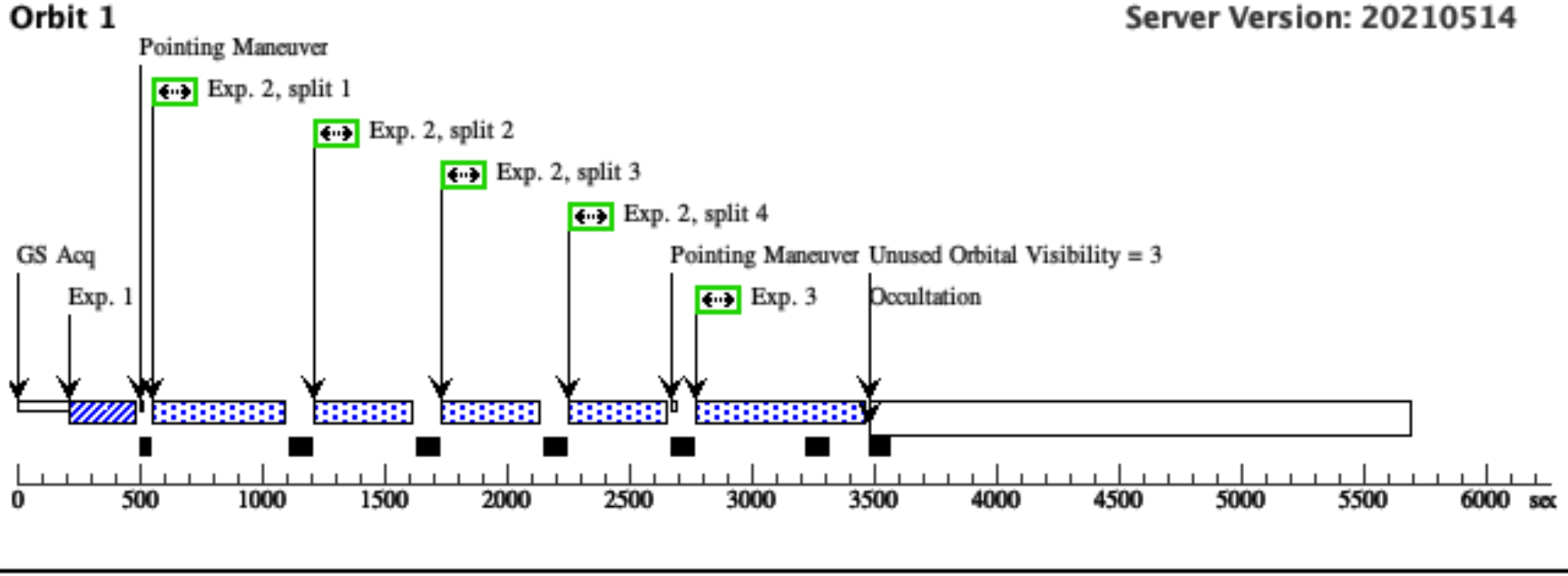
Extinction EBV = 0.07 + 0.09 = 0.16; https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf

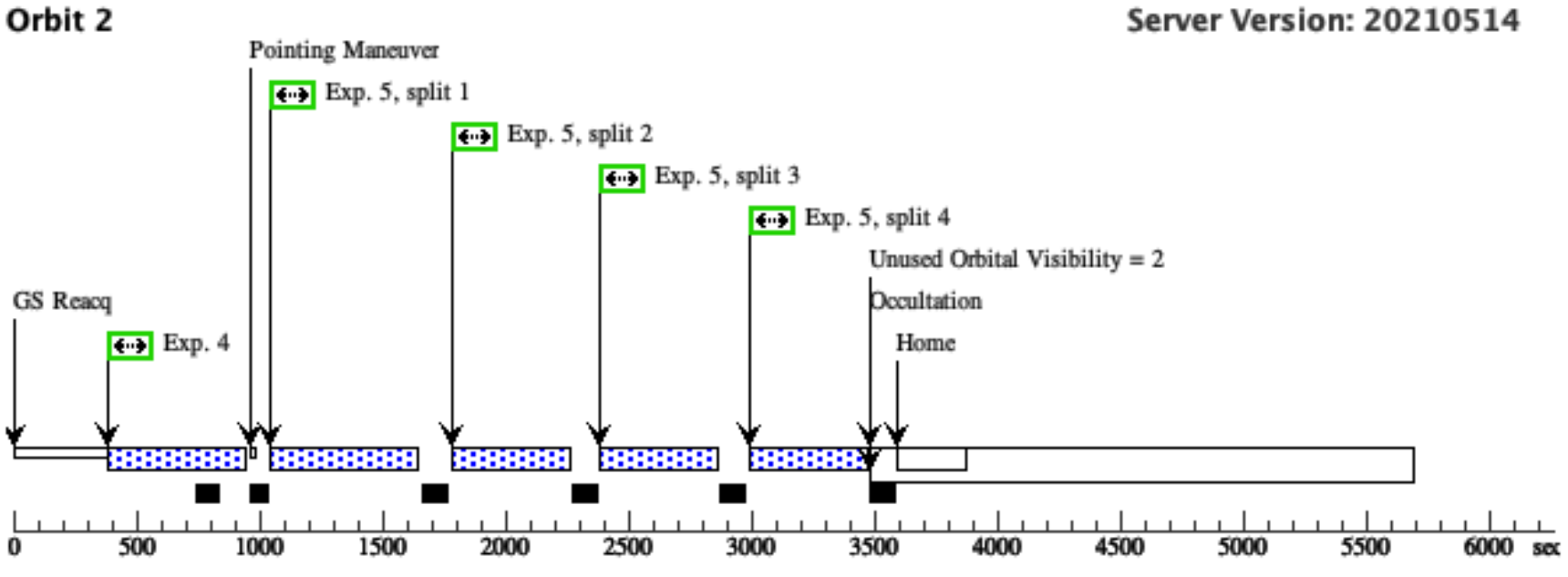
FOS/BL g130H observations (Y2A10204T), cont. flux (~1300Ang): ~ 1.3E-13 [cgs/A]; peak flux at 1555Ang, 1E-12 [cgs/A]
No WFC magnitudes available
No WFC image available
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.1451417)	(2) HD-32125	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				17.7 Secs (17.7 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.16, as derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf*								
2	(COS.sp.1451450)	(2) HD-32125	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=408; FP-POS=ALL			350 Secs (1392 Secs) *[==>348.0 Secs (Split 1)]* *[==>348.0 Secs (Split 2)]* *[==>348.0 Secs (Split 3)]* *[==>348.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.16 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1900/4 for S/N ~12 at 1100Ang*								
3	(COS.sp.1451446)	(2) HD-32125	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=318; FP-POS=3			450 Secs (546 Secs) *[==>546.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.16 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1000/2 for S/N ~35 at 1250Ang*								
4	(COS.sp.1451446)	(2) HD-32125	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=318; FP-POS=4			450 Secs (505 Secs) *[==>505.0 Secs]*	***[2]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.16 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1000/2 for S/N ~35 at 1250Ang*								
5	(COS.sp.1451448)	(2) HD-32125	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=428; FP-POS=ALL			370 Secs (1700 Secs) *[==>425.0 Secs (Split 1)]* *[==>425.0 Secs (Split 2)]* *[==>425.0 Secs (Split 3)]* *[==>425.0 Secs (Split 4)]*	***[2]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.15 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1000/4 for S/N ~30 at 1500Ang*								

Orbit Structure





Visit

Proposal 16272, Visit 03, completed Mon Oct 11 18:01:11 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: Target: HD 32228. Aimed S/N > ~ 30 in continuum

Target is in very crowded region of LH 9 OB association: see finding chart here: https://aas.aanda.org/articles/aas/full/1999/10/ds1668/img15.gif

COS likely not feasible here due to crowding (a few bright targets within ~1", 25 targets within ~5"). MAMA/STIS E140M proposed instead (similar wavelength coverage, better resolution, binning to get minimum S/N of ~10).

Due to crowding, selected in offset to ACQ-TARGET-HD-32228 (target 22)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	HD-32228	Offset from ACQ-TARGET-HD-32228 RA Offset: -0.797 Secs Dec Offset: 5.5 Arcsec		V=14.38	Offset Position (HD-32228)

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Very crowded region, ~25 bright stars within radius of 5".
LH 9 OB association. Finding chart avaiilable on Breysacher+ 1999 catalogue, Fig. 2, BAT99 10: https://aas.aanda.org/articles/aas/full/1999/10/ds1668/img15.gif

XMM-OT:UVM2 flux (lam=2310 Ang): 3.72E-13 erg/s/cm2/Ang (0.063 Jy)
vmag according to Breysacher+99: 14.38

No WFC magnitudes available,
multiple WFC images available (but magnitude not extracted)

Given crowding, approval to use STIS E140M instead

Relative distance to target 22 (Gaia DR3 4662154156232616448) measured from available HLA images.
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

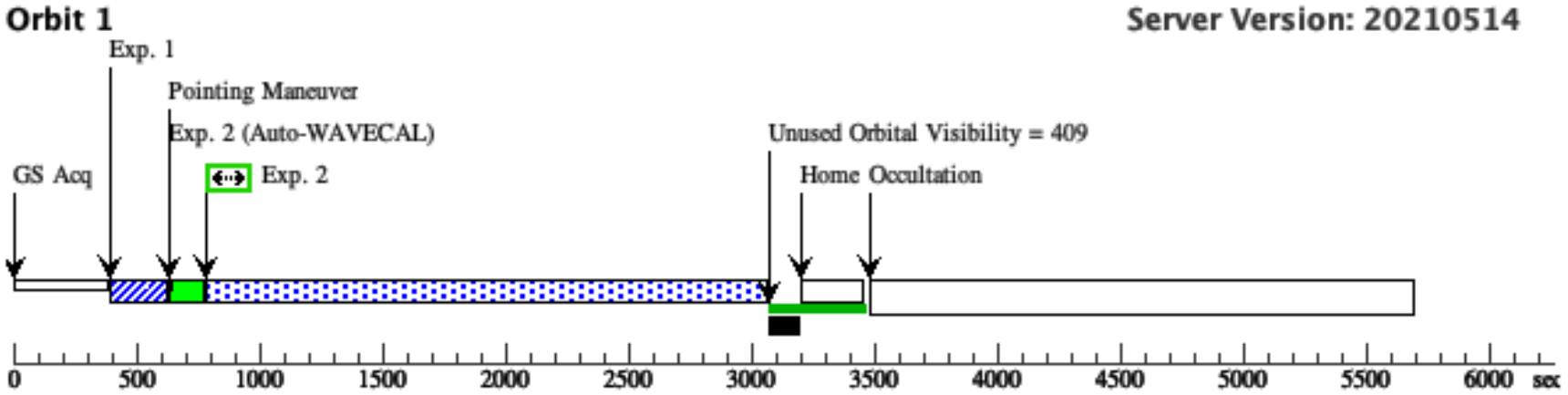
(22)	ACQ-TARGET-HD-32228 Alt Name1: GAIA-DR3-4662154156232616448	RA: 04 56 35.4904 (74.1478767d) Dec: -66 28 32.72 (-66.47576d) Equinox: J2000		V=(?) F220W = 15.388; G=15.735747	Reference Frame: ICRS

Comments: Coordinates from Gaia.
Category=EXT-STAR
Description=[UNDESIGNATED]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.1514403)	(22) ACQ-TARGET-HD-32228	STIS/CCD, ACQ, F28X50LP	MIRROR				0.2 Secs (0.2 Secs) *[==>]*	 ***[1]***
2	(STIS.sp.1457752)	(3) HD-32228	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2800 Secs (2261 Secs) *[==>2261.0 Secs]*	 ***[1]***

Orbit Structure



Visit

Proposal 16272, Visit 04, completed Mon Oct 11 18:01:11 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: (none)

Comments: Target: Brey 16a. Aimed S/N > ~ 20 in continuum

Normalised according to measured UV flux at ~1300Ang and published extinction (see description in target/exposures)

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 04) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 04) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 04) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 04) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	BREY-16A	RA: 05 09 53.7714 (77.4740475d) Dec: -68 52 52.47 (-68.88124d) Equinox: J2000	Proper Motion RA: 3.291680935752078E-4 sec of time/yr Proper Motion Dec: 3.18000000000000003E-4 arcsec/yr Epoch of Position: 2015.5	V=13.93 B = 14.12	Reference Frame: ICRS

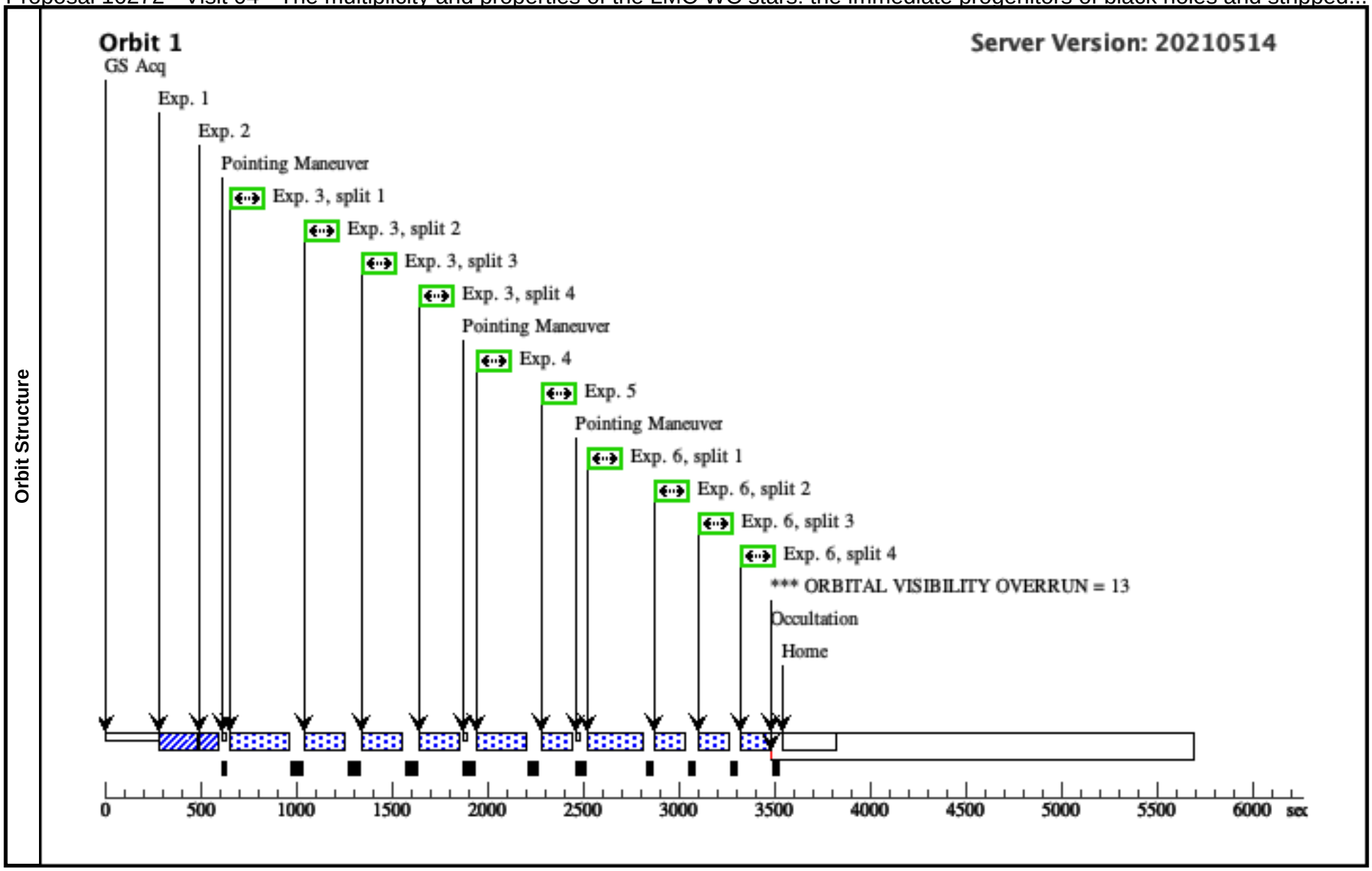
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
None

No WFC magnitudes available
No WFC image available
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.146 5810)	(4) BREY-16A	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.3979 Secs (0.398 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *Disperesed-light acquisition to avoid BOA*								
2	(COS.sa.146 5810)	(4) BREY-16A	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; SEGMENT=BOTH; STEP-SIZE=1.2			0.3979 Secs (0.398 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *Disperesed-light acquisition to avoid BOA*								
3	(COS.sp.145 1471)	(4) BREY-16A	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=330; FP-POS=ALL			200 Secs (632 Secs) *[==>158.0 Secs (Split 1)]* *[==>158.0 Secs (Split 2)]* *[==>158.0 Secs (Split 3)]* *[==>158.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 800/4 for S/N ~10 at 1100Ang*								
4	(COS.sp.145 1476)	(4) BREY-16A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=267; FP-POS=3			150 Secs (108 Secs) *[==>108.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~20 at 1250Ang*								
5	(COS.sp.145 1476)	(4) BREY-16A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=267; FP-POS=4			150 Secs (108 Secs) *[==>108.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~20 at 1250Ang*								
6	(COS.sp.145 1483)	(4) BREY-16A	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=580; FP-POS=ALL			150 Secs (432 Secs) *[==>108.0 Secs (Split 1)]* *[==>108.0 Secs (Split 2)]* *[==>108.0 Secs (Split 3)]* *[==>108.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 600/4 for S/N ~20 at 1500Ang*								


Orbit Structure
Orbit 1
Server Version: 20210514
GS Acq
Exp. 1
Exp. 2
Pointing Maneuver
Exp. 3, split 1
Exp. 3, split 2
Exp. 3, split 3
Exp. 3, split 4
Pointing Maneuver
Exp. 4
Exp. 5
Pointing Maneuver
Exp. 6, split 1
Exp. 6, split 2
Exp. 6, split 3
Exp. 6, split 4
*** ORBITAL VISIBILITY OVERRUN = 13
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 05, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: Target: HD 35517. Aimed S/N > ~ 30 in continuum

Normalised according to U=11.193 and extinction of 0.07 (absolute minimum given foreground Galactic extinction)

COS likely not feasible here. Reason: "WARNING MESSAGE: Segment countrate 42160.8149404 exceeds segment/stripe global count rate limit of 15000 counts per second for non-variable sources." (COS.sp.1451505)

MAMA/STIS E140M proposed instead (similar wavelength coverage, better resolution, exposure time within limits given to brightness of target).

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	HD-35517	RA: 05 19 16.3578 (79.8181575d) Dec: -69 39 20.00 (-69.65556d) Equinox: J2000	Proper Motion RA: 3.6855609048806217E-4 sec of time/yr Proper Motion Dec: 2.1500000000000002E-4 arcsec/yr Epoch of Position: 2015.5	V=11.58 U = 11.193	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
Gaia DR2 4658169143809610240: V = 14.85 (sep~5")
Gaia DR2 4658169148113284480: V= 14.04
Gaia DR2 4658169148168411904: V= 15.7
Gaia DR2 4658169148113286016: V= 15.6
Gaia DR2 4658169148113285760: V=15.1
Gaia DR2 4658169148113285120: V=15.8
Gaia DR2 4658169148168411776: V=14.1
Gaia DR2 4658169148113284224: V=15.8

No WFC magnitudes available
No WFC image available
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

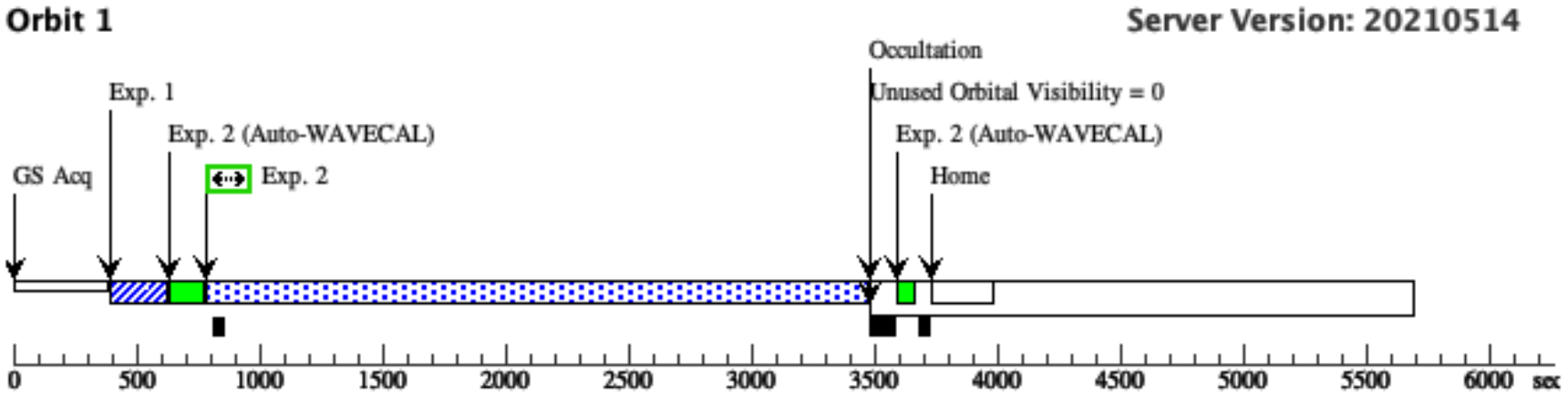
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.1457754)	(5) HD-35517	STIS/CCD, ACQ, F28X50LP	MIRROR				0.2 Secs (0.2 Secs) *[==>]*	 ***[1]***

Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	(STIS.sp.1457755)	(5) HD-35517	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2600.0000 Secs (2670 Secs) *[==>2670.0 Secs]*	 ***[1]***

Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)

Orbit Structure



Visit

Proposal 16272, Visit 06, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: (none)

Comments: Target: HD 36156. Aimed S/N > ~ 20 in continuum

Normalised according to U=11.732 and extinction of 0.07 (absolute minimum given foreground Galactic extinction)

Target may be problematic with COS: "WARNING MESSAGE: Segment countrate 10861.0079913 exceeds segment/stripe limit for irregularly-variable sources. (The segment limit for irregularly-variable sources is 40 percent of global count rate limit, i.e., 40 percent of 15000 counts per second.)" -- COS.sp.1451518

Attempting phase II with cos regardless, awating feedfback from CS.

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 06) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 06) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 06) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 06) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	HD-36156	RA: 05 23 10.0651 (80.7919379d) Dec: -71 20 50.84 (-71.34746d) Equinox: J2000	Proper Motion RA: 4.748380359279671E-4 sec of time/yr Proper Motion Dec: 3.16E-4 arcsec/yr Epoch of Position: 2015.5	V=12.74 U = 11.732	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

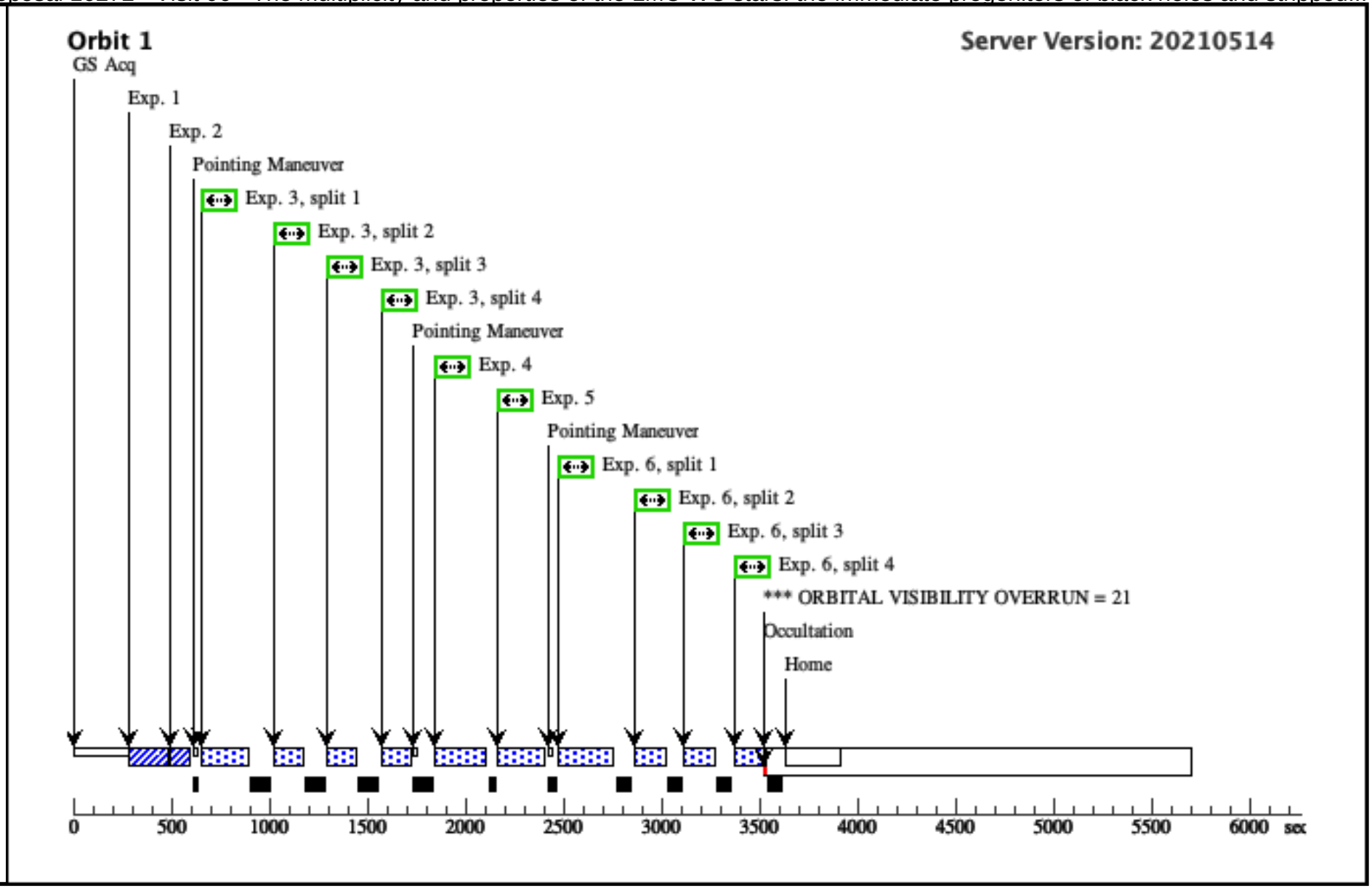
Bright (V<16mag) nearby stars within 20" (Gaia):
None

No WFC magnitudes available
No WFC image available
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.146 6211)	(6) HD-36156	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.1824 Secs (0.182 Secs) *[==>]*	*[1]*
2	(COS.sa.146 6211)	(6) HD-36156	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; SEGMENT=BOTH; NUM-POS=3; STEP-SIZE=1.2			0.1824 Secs (0.182 Secs) *[==>]*	*[1]*
3	(COS.sp.145 1520)	(6) HD-36156	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=95; FP-POS=ALL			60 Secs (376 Secs) *[==>94.0 Secs (Split 1)]* *[==>94.0 Secs (Split 2)]* *[==>94.0 Secs (Split 3)]* *[==>94.0 Secs (Split 4)]*	*[1]*
Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 250/4 for S/N ~10 at 1100Ang*									
4	(COS.sp.145 1483)	(6) HD-36156	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=580; FP-POS=3			80 Secs (114 Secs) *[==>114.0 Secs]*	*[1]*
Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 160/2 for S/N ~30 at 1250Ang*									
5	(COS.sp.145 1483)	(6) HD-36156	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=580; FP-POS=4			150 Secs (184 Secs) *[==>184.0 Secs]*	*[1]*
Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 160/2 for S/N ~30 at 1250Ang*									
6	(COS.sp.145 1522)	(6) HD-36156	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=171; FP-POS=ALL			70 Secs (416 Secs) *[==>104.0 Secs (Split 1)]* *[==>104.0 Secs (Split 2)]* *[==>104.0 Secs (Split 3)]* *[==>104.0 Secs (Split 4)]*	*[1]*
Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 240/4 for S/N ~20 at 1500Ang*									

Orbit Structure



Visit

Proposal 16272, Visit 07, scheduled Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: Target: HD 36521. Aimed S/N > ~ 30 in continuum

F225W = 11.974mag (AB)

Acccording to WFC3 225 image (LH-58WEST), there is a nearby source (sep ~ 0.1") with f225_MAGAP2= 15.548mag, i.e., ~30 times fainter.

Changed to STIS following CA's recommendation

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HD-36521	RA: 05 26 30.2360 (81.6259833d) Dec: -68 50 27.56 (-68.84099d) Equinox: J2000	Proper Motion RA: -3.1397971469744715E-4 sec of time/yr Proper Motion Dec: -0.0028999999585721525 arcsec/yr Epoch of Position: 2015.5	V=12.32 B 12.16; f225_MAGAP2 = 11.974	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
Gaia DR2 4658486696548190720: 15.593228
Gaia DR2 4658486700841724672: 14.212061
Gaia DR2 4658486666458323328: 15.19423 (sep ~2")

HLA WFC3/UVIS image available (LH-58WEST) (. f225_MAGAP2 = 11.974 (automatically extracted with DAOphot).

Nearby sources & magnitudes:
1. N, 0.5", f225_MAGAP2= 15.548mag
2. NE, 1.6", f225_MAGAP2= 14.881mag
3. NNE, 16", f225_MAGAP2= 13.709mag

ORIENT set to avoid bright source at NNE, 16", f225_MAGAP2= 13.709mag
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.1479445)	(7) HD-36521	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	 ***[1]***

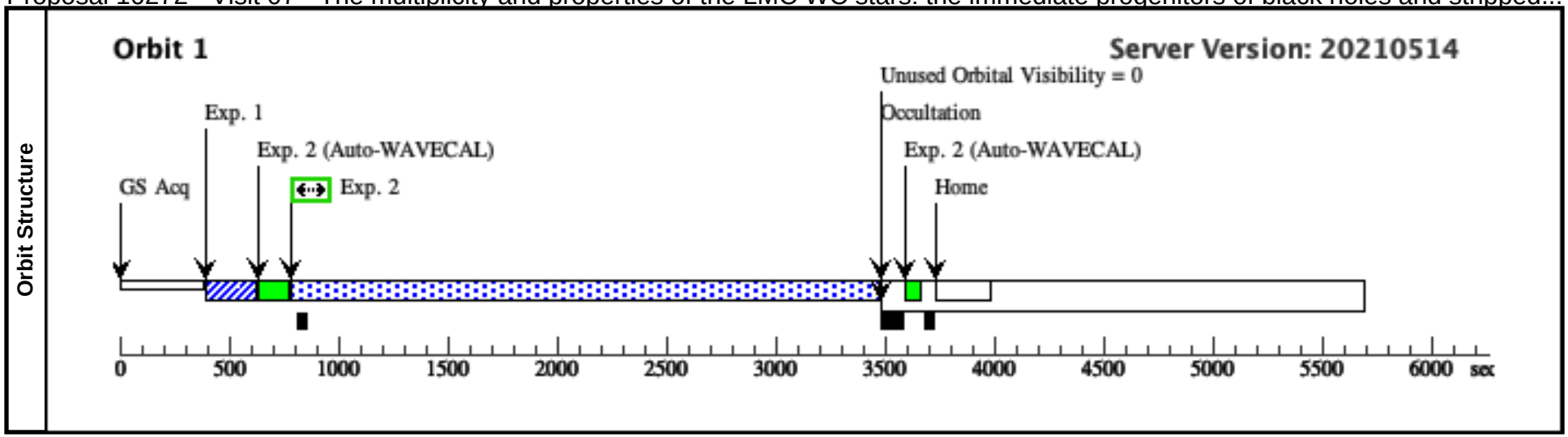
Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.11, as derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf

Changed to STIS following CA's recommendation

ORIENT set to avoid bright source at NNE, 16", f225_MAGAP2= 13.709mag

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	(STIS.sp.1479447)	(7) HD-36521	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2600 Secs (2670 Secs) *[==>2670.0 Secs]*	 ***[1]***

Comments: Expected S/N ~ 15-20 @1500A


Orbit Structure
Orbit 1
Server Version: 20210514
Unused Orbital Visibility = 0
Exp. 1
Occultation
Exp. 2 (Auto-WAVECAL)
Exp. 2 (Auto-WAVECAL)
GS Acq
Exp. 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 08, failed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: ORIENT 164D TO 200 D; ORIENT 290D TO 300 D

Comments: Target: HD 37026. Aimed S/N > ~ 30 in continuum

Normalised according to measured UV flux at ~1300Ang and published extinction (see description in target/exposures)

Target may be problematic with COS: "WARNING MESSAGE: Segment countrate 6997.56778689 exceeds segment/stripe limit for irregularly-variable sources. (The segment limit for irregularly-variable sources is 40 percent of global count rate limit, i.e., 40 percent of 15000 counts per second.)" -- COS.sp.1451535

Attempting phase II with cos regardless, awating feedfback from CS.

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 08) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 08) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 08) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	HD-37026	RA: 05 30 12.1678 (82.5506992d) Dec: -67 26 8.32 (-67.43564d) Equinox: J2000	Proper Motion RA: 2.6269092610016936E-4 sec of time/yr Proper Motion Dec: 5.629999999999999E-4 arcsec/yr Epoch of Position: 2015.5	V=13.53 U = 12.853; ~4E-13 @ 1300Ang	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
None

Extinction EBV = 0.07 + 0.04 = 0.11; https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf

FOS/BL G130H observations (Y2JE0205T), cont. flux (~1300Ang) ~ 4E-13 [cgs/A]; peak flux at 1175; 1555Ang, ~2.5E-12 [cgs/A]

(one target to W, sep ~ 19", has G_GAIA = 16.11mag)

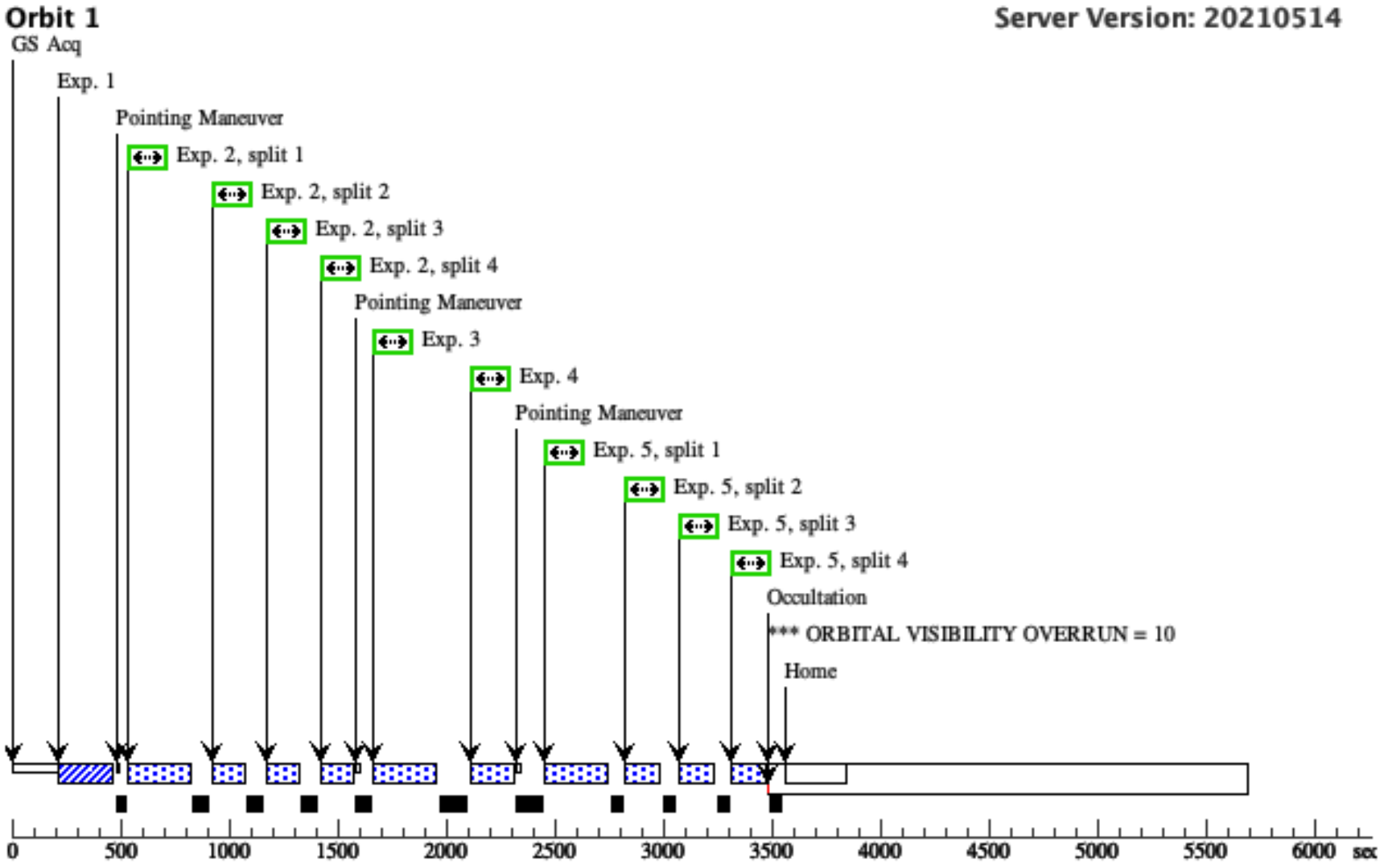
No HLA WFC3/UVIS image available.

ORIENT set to avoid bright source in W (sep ~ 19")
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.145 1533)	(8) HD-37026	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				7.0684 Secs (7.068 Secs) *[==>]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11, as derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf* *BOA preferred since no bright (V<16mag) GAIA sources are within 20" (one target to W, sep ~ 19", has G_GAIA = 16.11mag)* *ORIENT set to avoid bright source in W (sep ~ 19")*								
2	(COS.sp.145 1535)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=151; FP-POS=ALL			100 Secs (384 Secs) *[==>96.0 Secs (Split 1)]* *[==>96.0 Secs (Split 2)]* *[==>96.0 Secs (Split 3)]* *[==>96.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 400/4 for S/N ~10 at 1100Ang*								
3	(COS.sp.145 1537)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=122; FP-POS=3			150 Secs (146 Secs) *[==>146.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~30 at 1250Ang*								
4	(COS.sp.145 1537)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=122; FP-POS=4			150 Secs (146 Secs) *[==>146.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~30 at 1250Ang*								
5	(COS.sp.145 1538)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=251; FP-POS=ALL			115 Secs (444 Secs) *[==>111.0 Secs (Split 1)]* *[==>111.0 Secs (Split 2)]* *[==>111.0 Secs (Split 3)]* *[==>111.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 450/4 for S/N ~30 at 1500Ang*								

Orbit Structure



Visit

Proposal 16272, Visit 08 Repeat (58), implementation Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: ORIENT 164D TO 200 D; ORIENT 290D TO 300 D

Comments: Target: HD 37026. Aimed S/N > ~ 30 in continuum

Normalised according to measured UV flux at ~1300Ang and published extinction (see description in target/exposures)

Target may be problematic with COS: "WARNING MESSAGE: Segment countrate 6997.56778689 exceeds segment/stripe limit for irregularly-variable sources. (The segment limit for irregularly-variable sources is 40 percent of global count rate limit, i.e., 40 percent of 15000 counts per second.)" -- COS.sp.1451535

Attempting phase II with cos regardless, awating feedfback from CS.

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 08 Repeat (58)) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 08 Repeat (58)) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	HD-37026	RA: 05 30 12.1678 (82.5506992d) Dec: -67 26 8.32 (-67.43564d) Equinox: J2000	Proper Motion RA: 2.6269092610016936E-4 sec of time/yr Proper Motion Dec: 5.629999999999999E-4 arcsec/yr Epoch of Position: 2015.5	V=13.53 U = 12.853; ~4E-13 @ 1300Ang	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
None

Extinction EBV = 0.07 + 0.04 = 0.11; https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf

FOS/BL G130H observations (Y2JE0205T), cont. flux (~1300Ang) ~ 4E-13 [cgs/A]; peak flux at 1175; 1555Ang, ~2.5E-12 [cgs/A]

(one target to W, sep ~ 19", has G_GAIA = 16.11mag)

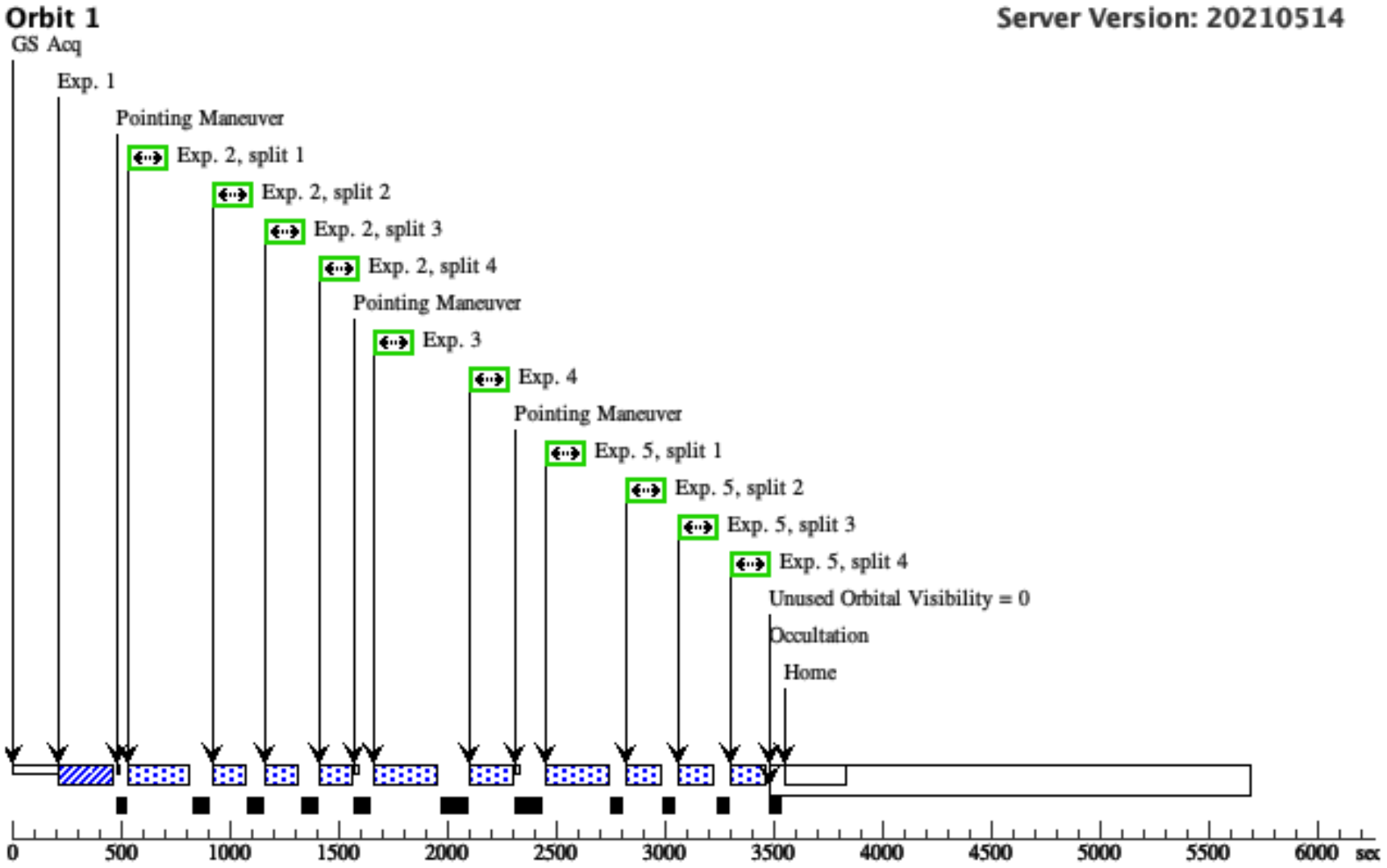
No HLA WFC3/UVIS image available.

ORIENT set to avoid bright source in W (sep ~ 19")
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.145 1533)	(8) HD-37026	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				7.0684 Secs (7.068 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11, as derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf* *BOA preferred since no bright (V<16mag) GAIA sources are within 20" (one target to W, sep ~ 19", has G_GAIA = 16.11mag)* *ORIENT set to avoid bright source in W (sep ~ 19")*								
2	(COS.sp.145 1535)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=151; FP-POS=ALL			100 Secs (380 Secs) *[==>95.0 Secs (Split 1)]* *[==>95.0 Secs (Split 2)]* *[==>95.0 Secs (Split 3)]* *[==>95.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 400/4 for S/N ~10 at 1100Ang*								
3	(COS.sp.145 1537)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=122; FP-POS=3			150 Secs (145 Secs) *[==>145.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~30 at 1250Ang*								
4	(COS.sp.145 1537)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=122; FP-POS=4			150 Secs (145 Secs) *[==>145.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~30 at 1250Ang*								
5	(COS.sp.145 1538)	(8) HD-37026	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=251; FP-POS=ALL			115 Secs (440 Secs) *[==>110.0 Secs (Split 1)]* *[==>110.0 Secs (Split 2)]* *[==>110.0 Secs (Split 3)]* *[==>110.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.11 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 450/4 for S/N ~30 at 1500Ang*								

Orbit Structure



Visit

Proposal 16272, Visit 09, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: (none)

Comments: Target: HD 37248. Aimed S/N > ~ 30 in continuum

Normalised according to measured UV flux at ~1300Ang and published extinction (see description in target/exposures)

COS may not be feasible here due to crowding (see description in HD 37248). Unfortunately, no hgh-res HLA images available

Attempting phase II with cos regardless, awating feedfback from CS.

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 09) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 09) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 09) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 09) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	HD-37248	RA: 05 30 38.7030 (82.6612625d)	Epoch of Position: 2015.5	V=12.99	Reference Frame: ICRS
		Dec: -71 01 47.80 (-71.02994d)		U = 12.319	
		Equinox: J2000			

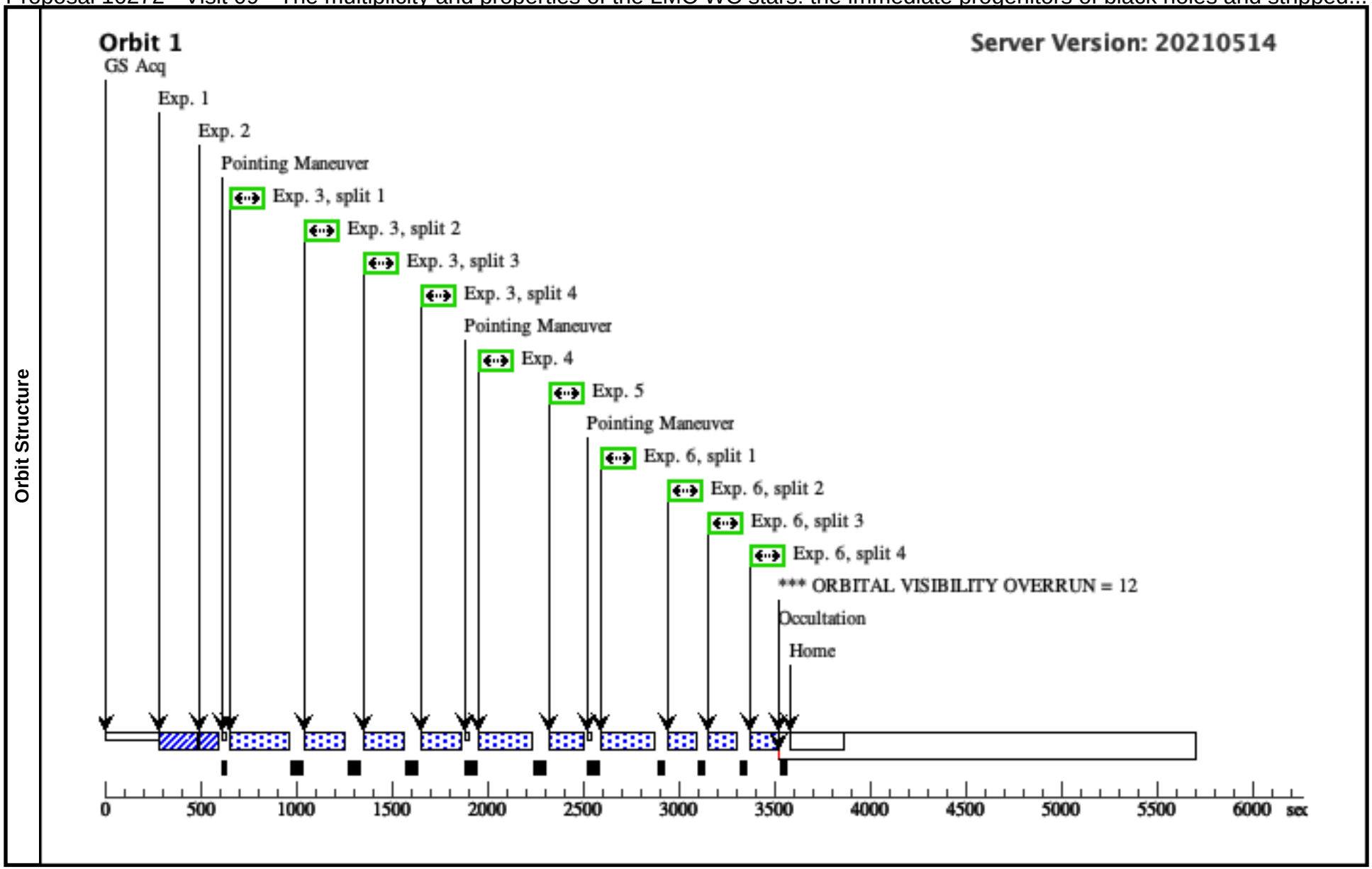
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright (V<16mag) nearby stars within 20" (Gaia):
Gaia DR2 4651835647716971776: 15.89 (sep ~ 1")
Gaia DR2 4651835651924338560: 15.66 (sep ~ 2")
Gaia DR2 4651835651924334848: 14.8
Gaia DR2 4651835686284076800: 14.07
Gaia DR2 4651835720643989888: 14.88
Gaa DR2 4651835681954821120: 12.8

No HLA WFC3/UVIS image available (star at the edge of available images)
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.146 6219)	(9) HD-37248	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.3134 Secs (0.313 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07, minimum derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf* *Disperesed-light acquisition to avoid BOA*								
2	(COS.sa.146 6219)	(9) HD-37248	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; SEGMENT=BOTH; STEP-SIZE=1.2			0.3134 Secs (0.313 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07, minimum derived by Crowther+2002 https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf* *Disperesed-light acquisition to avoid BOA*								
3	(COS.sp.145 1550)	(9) HD-37248	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=300; FP-POS=ALL			200 Secs (640 Secs) *[==>160.0 Secs (Split 1)]* *[==>160.0 Secs (Split 2)]* *[==>160.0 Secs (Split 3)]* *[==>160.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 780/4 for S/N ~10 at 1100Ang*								
4	(COS.sp.145 1542)	(9) HD-37248	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=234; FP-POS=3			170 Secs (130 Secs) *[==>130.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 340/2 for S/N ~25 at 1250Ang*								
5	(COS.sp.145 1548)	(9) HD-37248	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=234; FP-POS=4			170 Secs (130 Secs) *[==>130.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 340/2 for S/N ~25 at 1250Ang*								
6	(COS.sp.145 1552)	(9) HD-37248	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=508; FP-POS=ALL			140 Secs (400 Secs) *[==>100.0 Secs (Split 1)]* *[==>100.0 Secs (Split 2)]* *[==>100.0 Secs (Split 3)]* *[==>100.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 560/4 for S/N ~25 at 1500Ang*								


Orbit Structure
Orbit 1
Server Version: 20210514
GS Acq
Exp. 1
Exp. 2
Pointing Maneuver
Exp. 3, split 1
Exp. 3, split 2
Exp. 3, split 3
Exp. 3, split 4
Pointing Maneuver
Exp. 4
Exp. 5
Pointing Maneuver
Exp. 6, split 1
Exp. 6, split 2
Exp. 6, split 3
Exp. 6, split 4
*** ORBITAL VISIBILITY OVERRUN = 12
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 11, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: Brey 269818. Aimed S/N > ~ 10 in continuum

Normalised according to SExtractor Tot_mag = 14.8885mag in F300W assuming EBV=0.07

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 11) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 11) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 11) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	HD-269818	RA: 05 35 43.4996 (83.9312483d) Dec: -69 10 58.02 (-69.18278d) Equinox: J2000	Proper Motion RA: 2.98640860849273E-4 sec of time/yr Proper Motion Dec: 5.92E-4 arcsec/yr Epoch of Position: 2015.5	V=13.897 U = 14.169; SExtractor Tot_mag = 14.8885mag	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

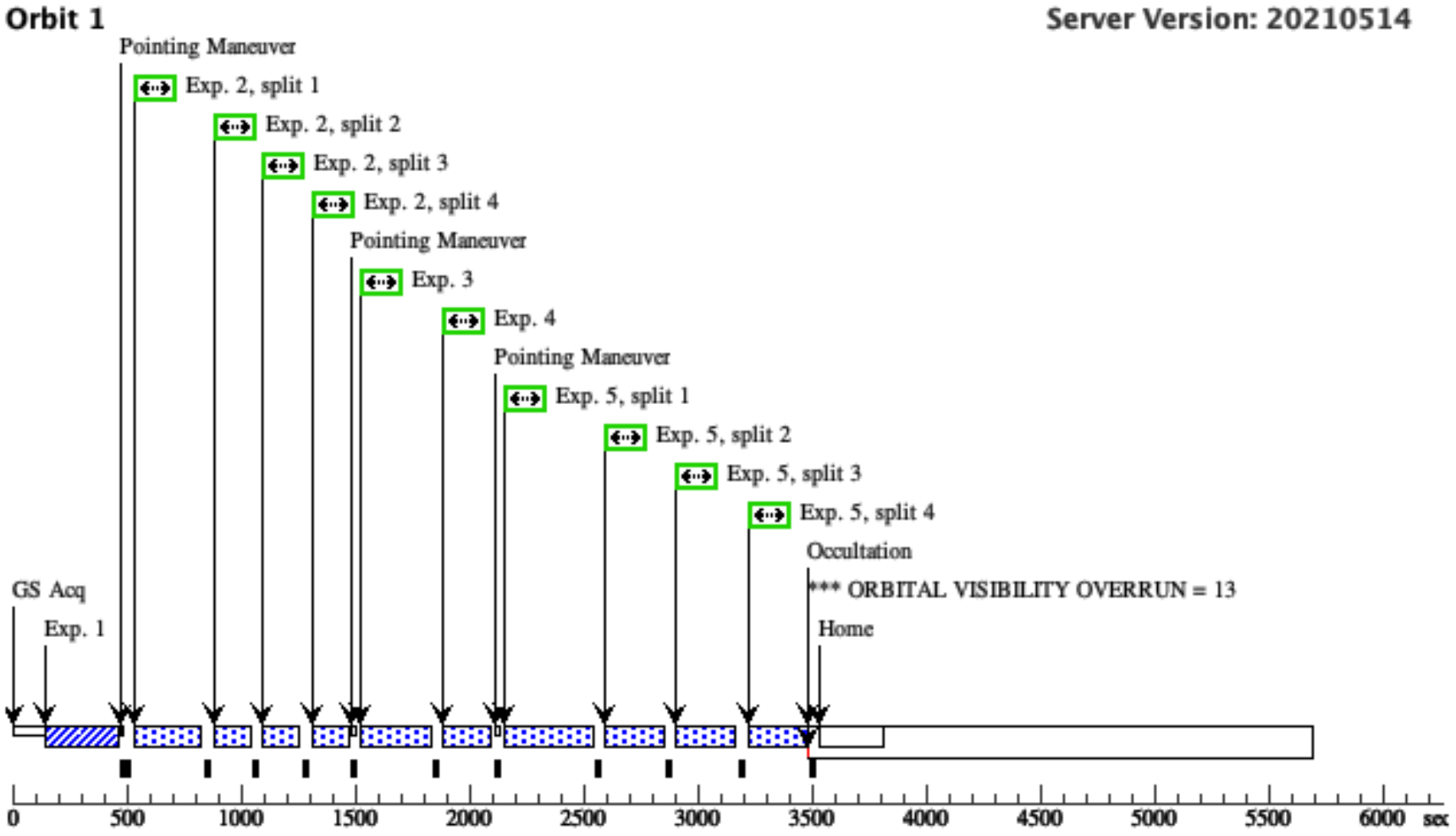
Bright targets in 20" radius:
Gaia DR2 4657670210359726848: 15.56 (5")
Gaia DR2 4657670210382467712: 14.51
Gaia DR2 4657670206050690688: 14.93

Several WFC images. 07553_6c WFPC2 F300W --> SExtractor Tot_mag = 14.8885mag
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.1451570)	(11) HD-269818	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				5.9767 Secs (5.977 Secs) *[==>]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07, minimum foreground Galactic extinction https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf*								
2	(COS.sp.1451581)	(11) HD-269818	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=2500; FP-POS=ALL			200 Secs (440 Secs) *[==>110.0 Secs (Split 1)]* *[==>110.0 Secs (Split 2)]* *[==>110.0 Secs (Split 3)]* *[==>110.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 700/4 for S/N ~2 at 1100Ang*								
3	(COS.sp.1451579)	(11) HD-269818	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1676; FP-POS=3			250 Secs (160 Secs) *[==>160.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 500/2 for S/N ~10 at 1250Ang*								
4	(COS.sp.1451579)	(11) HD-269818	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1676; FP-POS=4			250 Secs (160 Secs) *[==>160.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 500/2 for S/N ~10 at 1250Ang*								
5	(COS.sp.1451580)	(11) HD-269818	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=4200; FP-POS=ALL			300 Secs (840 Secs) *[==>210.0 Secs (Split 1)]* *[==>210.0 Secs (Split 2)]* *[==>210.0 Secs (Split 3)]* *[==>210.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1300/4 for S/N ~10 at 1500Ang*								

Orbit Structure



Visit

Proposal 16272, Visit 12, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: Target: HD 35517. Aimed S/N > ~ 30 in continuum

Normalised according to U=11.193 and extinction of 0.07 (absolute minimum given foreground Galactic extinction)

COS likely not feasible here. Reason: "WARNING MESSAGE: Segment countrate 42160.8149404 exceeds segment/stripe global count rate limit of 15000 counts per second for non-variable sources." (COS.sp.1451505)

MAMA/STIS E140M proposed instead (similar wavelength coverage, better resolution, exposure time within limits given to brightness of target).

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	HD-38030	RA: 05 36 51.3850 (84.2141042d) Dec: -69 25 56.73 (-69.43243d) Equinox: J2000	Proper Motion RA: 3.3417603662994516E-4 sec of time/yr Proper Motion Dec: 5.570000000000001E-4 arcsec/yr Epoch of Position: 2015.5	V=12.986 U = 12.023	Reference Frame: ICRS

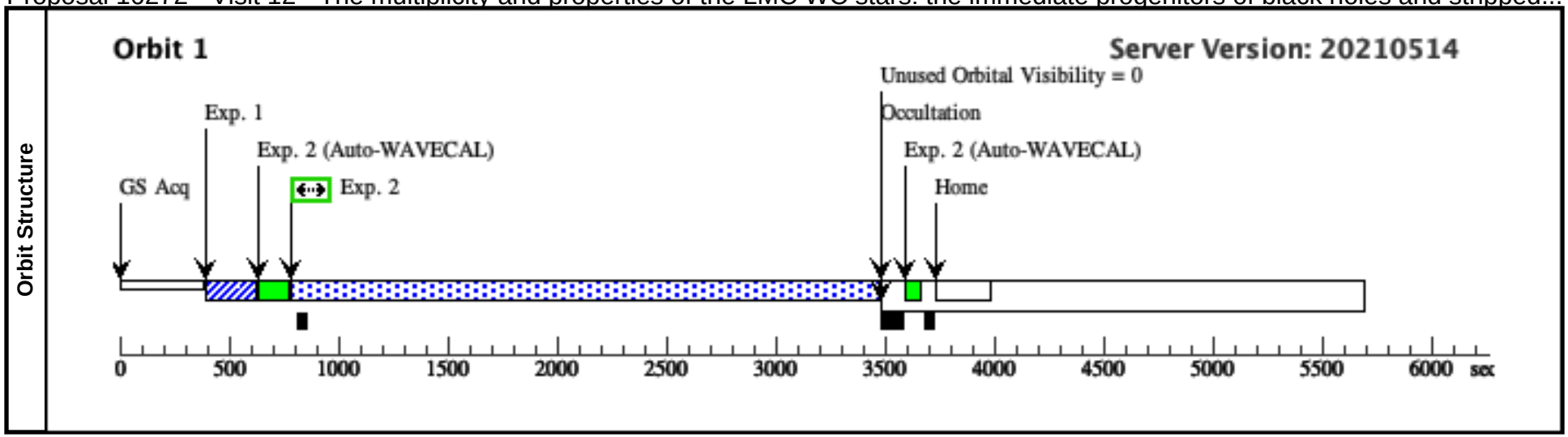
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright targets in 20" radius:
Gaia DR2 4657657497278129152: 15.69
Gaia DR2 4657657119320999680: 13.80
Gaia DR2 4657657497278114816: 15.78
Gaia DR2 4657657114982594688: 14.97

No HLA WFC3/UVIS image available
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.1472713)	(12) HD-38030	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) *[==>]*	 ***[1]***
Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. Adopted extinction: EBV = 0.08 (http://articles.adsabs.harvard.edu/pdf/2001MNRAS.324...18B)									
2	(STIS.sp.1472707)	(12) HD-38030	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2600.0000 Secs (2670 Secs) *[==>2670.0 Secs]*	 ***[1]***
Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. Adopted extinction: EBV = 0.08 (http://articles.adsabs.harvard.edu/pdf/2001MNRAS.324...18f)									


Orbit Structure
Orbit 1
Server Version: 20210514
Unused Orbital Visibility = 0
Exp. 1
Occultation
Exp. 2 (Auto-WAVECAL)
Exp. 2 (Auto-WAVECAL)
GS Acq
Exp. 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 13, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: (none)

Comments: Target: Brey 16a. Aimed S/N > ~ 20 in continuum

Normalised according to U = 12,023mag assuming EBV=0.07

WARNING MESSAGE: Segment countrate 8179.86929343 exceeds segment/stripe limit for irregularly-variable sources. (The segment limit for irregularly-variable sources is 40 percent of global count rate limit, i.e., 40 percent of 15000 counts per second.) [COS.sp.1451583]

Attempting phase II with cos regardless, awating feedfback from CS.

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 13) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 13) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 13) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 13) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	BREY-70	RA: 05 37 29.2573 (84.3719054d) Dec: -69 20 47.57 (-69.34655d) Equinox: J2000	Proper Motion RA: 3.2831062092077796E-4 sec of time/yr Proper Motion Dec: 6.06E-4 arcsec/yr Epoch of Position: 2015.5	V=13.686 U = 12.862	Reference Frame: ICRS

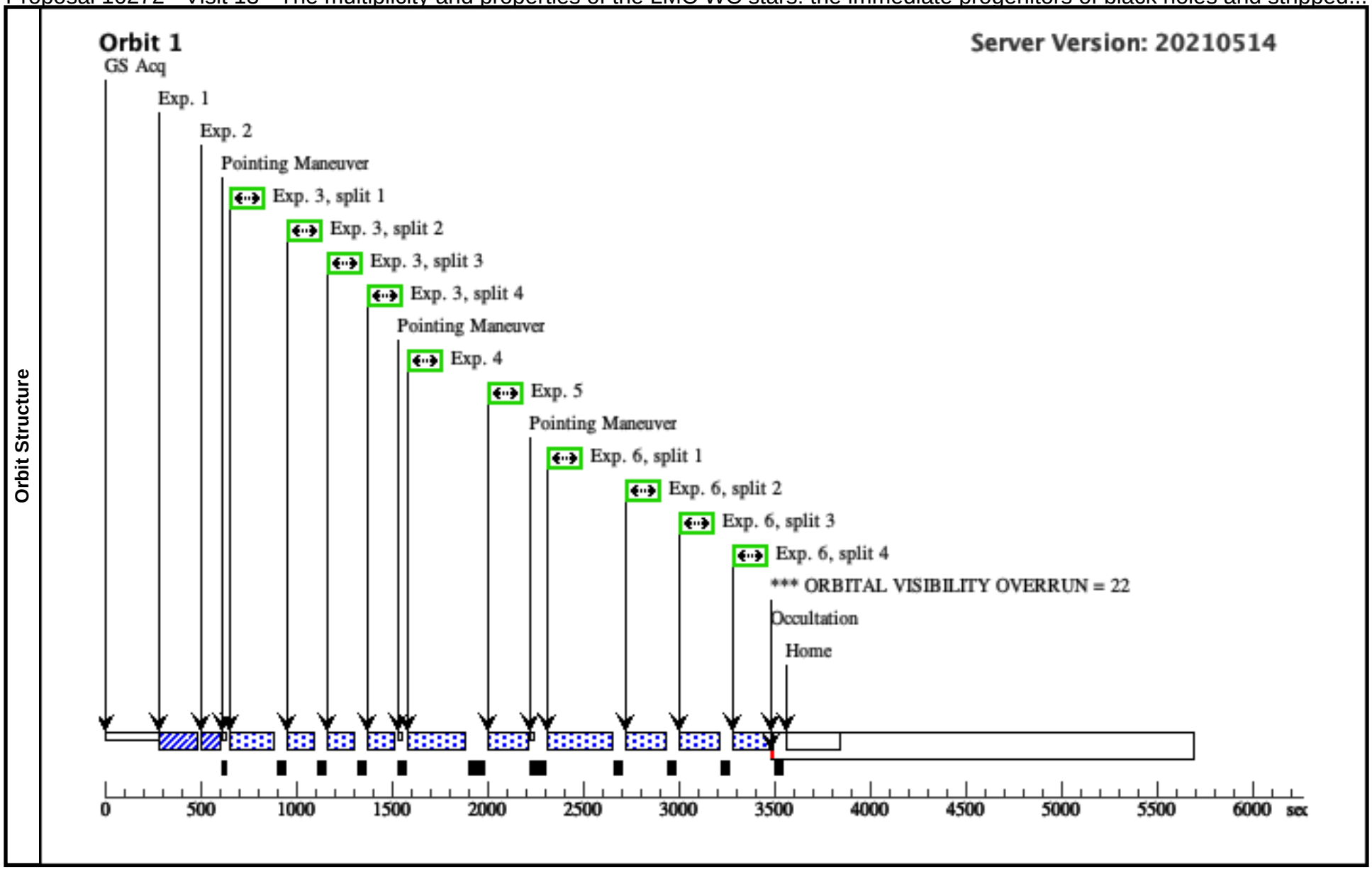
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Bright targets in 20" radius:
Gaia DR2: 4657663883921544832

no HLA WFC images (star on the edge of image, hst_06253_m9_wfpc2_f300w_wf)
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.146 6221)	(13) BREY-70	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				0.5173 Secs (0.517 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07, minimum foreground Galactic extinction https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf* *Dispersed-light acquisition to avoid BOA*								
2	(COS.sa.146 6221)	(13) BREY-70	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=DEF; NUM-POS=3; SEGMENT=BOTH; STEP-SIZE=1.2			0.5173 Secs (0.517 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07, minimum foreground Galactic extinction https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf* *Dispersed-light acquisition to avoid BOA*								
3	(COS.sp.145 1590)	(13) BREY-70	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=273; FP-POS=ALL			170 Secs (344 Secs) *[==>86.0 Secs (Split 1)]* *[==>86.0 Secs (Split 2)]* *[==>86.0 Secs (Split 3)]* *[==>86.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 660/4 for S/N ~10 at 1100Ang*								
4	(COS.sp.145 1589)	(13) BREY-70	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=220; FP-POS=3			240 Secs (156 Secs) *[==>156.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 470/2 for S/N ~30 at 1250Ang*								
5	(COS.sp.145 1589)	(13) BREY-70	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=220; FP-POS=4			240 Secs (156 Secs) *[==>156.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 470/2 for S/N ~30 at 1250Ang*								
6	(COS.sp.145 1588)	(13) BREY-70	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=491; FP-POS=ALL			240 Secs (624 Secs) *[==>156.0 Secs (Split 1)]* *[==>156.0 Secs (Split 2)]* *[==>156.0 Secs (Split 3)]* *[==>156.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 900/4 for S/N ~30 at 1500Ang*								


Orbit 1
Server Version: 20210514
Orbit Structure
GS Acq
Exp. 1
Exp. 2
Pointing Maneuver
Exp. 3, split 1
Exp. 3, split 2
Exp. 3, split 3
Exp. 3, split 4
Pointing Maneuver
Exp. 4
Exp. 5
Pointing Maneuver
Exp. 6, split 1
Exp. 6, split 2
Exp. 6, split 3
Exp. 6, split 4
*** ORBITAL VISIBILITY OVERRUN = 22
Occultation
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 14, failed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: Brey 16a. Aimed S/N > ~ 20 in continuum

Normalised according to U = 17.387 mag assuming EBV=0.07

S/N is ~2-10, lower than aimed at; see if extra orbits are available after dropping BAT99 69 (target 10)

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 14) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 14) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 14) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(14)	BREY-70A	RA: 05 37 35.7091 (84.3987879d) Dec: -69 08 40.24 (-69.14451d) Equinox: J2000	Proper Motion RA: 2.18531878557809E-4 sec of time/yr Proper Motion Dec: 7.34E-4 arcsec/yr Epoch of Position: 2015.5	V=16.924 U = 17.387	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

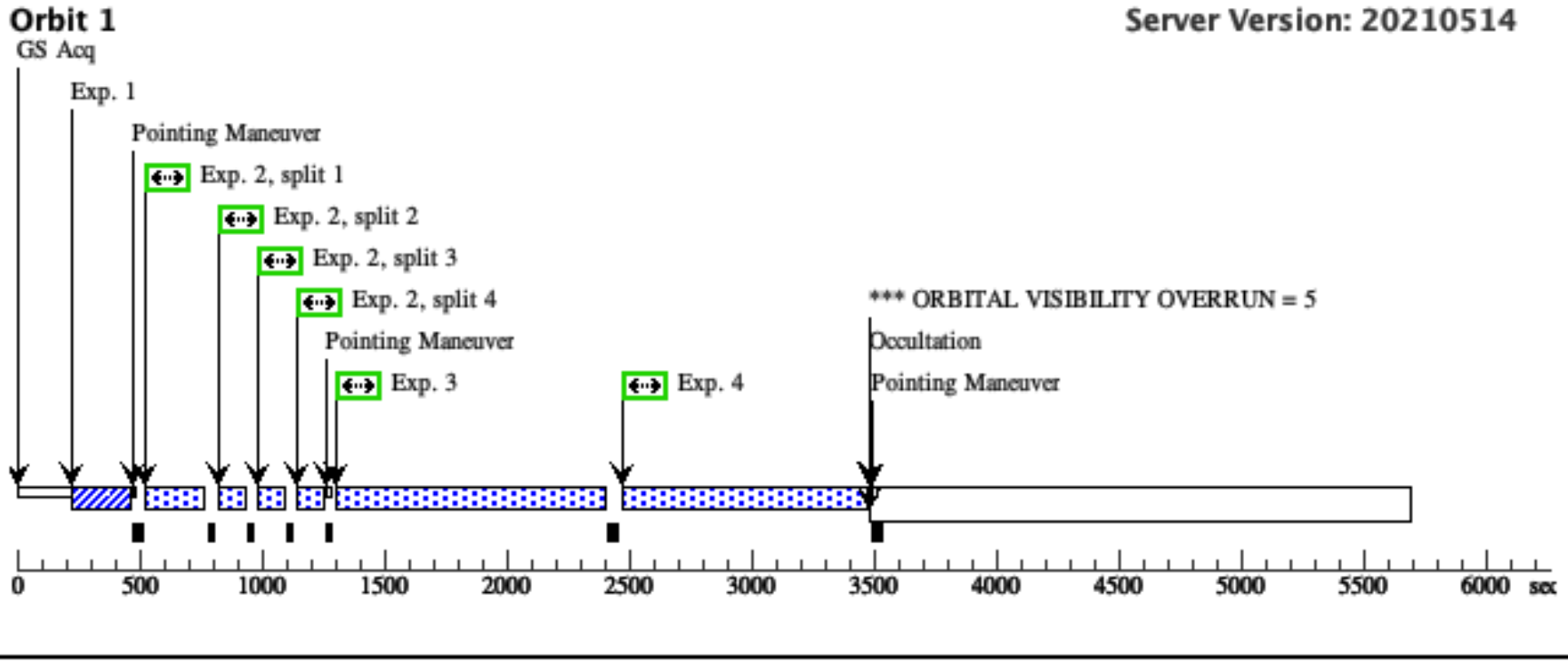
Several WFC HLA images (e.g. hst_12939_7s_acs_wfc_f555w)

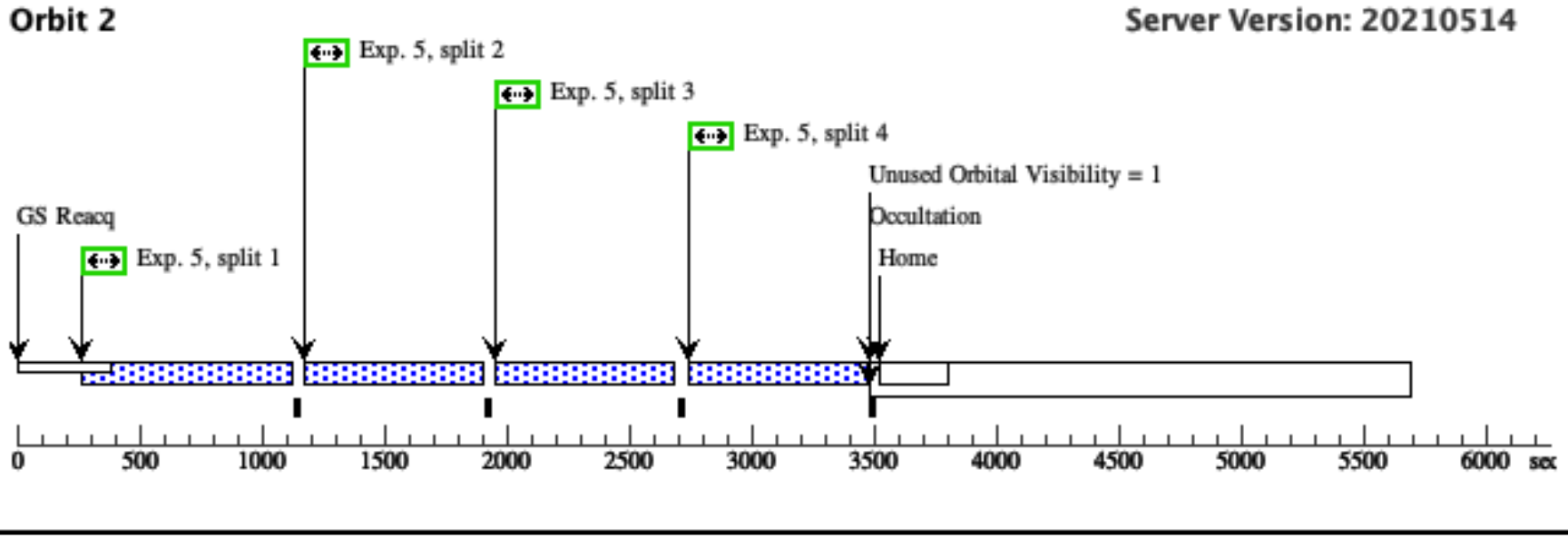
According to HLA image 12939_7d WFC3/UVIS F275W, target is heavily reddened, with a magnitude of ~19.83. The anticipated S/N is therefore 1-2.
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.1451596)	(14) BREY-70A	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				2.1393 Secs (2.139 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07, minimum foreground Galactic extinction https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf*								
2	(COS.sp.1451592)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=8628; FP-POS=ALL			500 Secs (224 Secs) *[==>56.0 Secs (Split 1)]* *[==>56.0 Secs (Split 2)]* *[==>56.0 Secs (Split 3)]* *[==>56.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 2000/4 for S/N ~2 at 1100Ang*								
3	(COS.sp.1451594)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3902; FP-POS=3			1500 Secs (951 Secs) *[==>951.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 3000/2 for S/N ~10 at 1250Ang*								
4	(COS.sp.1451594)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3902; FP-POS=4			1500 Secs (951 Secs) *[==>951.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 3000/2 for S/N ~10 at 1250Ang*								
5	(COS.sp.1451595)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=12921; FP-POS=ALL			1000 Secs (2712 Secs) *[==>678.0 Secs (Split 1)]* *[==>678.0 Secs (Split 2)]* *[==>678.0 Secs (Split 3)]* *[==>678.0 Secs (Split 4)]*	***[2]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~7000/4 for S/N ~10 at 1500Ang*								

Orbit Structure





Visit

Proposal 16272, VISIT 14 repeat (22), completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: Brey 16a. Aimed S/N > ~ 20 in continuum

Following approval of HOPR 91992, resubimitting Visit 14, which was not executed due to guide-star acquisition failure.

Normalised according to U = 17.387 mag assuming EBV=0.07

S/N is ~2-10, lower than aimed at; see if extra orbits are available after dropping BAT99 69 (target 10)

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(VISIT 14 repeat (22)) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(VISIT 14 repeat (22)) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(VISIT 14 repeat (22)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(14)	BREY-70A	RA: 05 37 35.7091 (84.3987879d) Dec: -69 08 40.24 (-69.14451d) Equinox: J2000	Proper Motion RA: 2.18531878557809E-4 sec of time/yr Proper Motion Dec: 7.34E-4 arcsec/yr Epoch of Position: 2015.5	V=16.924 U = 17.387	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

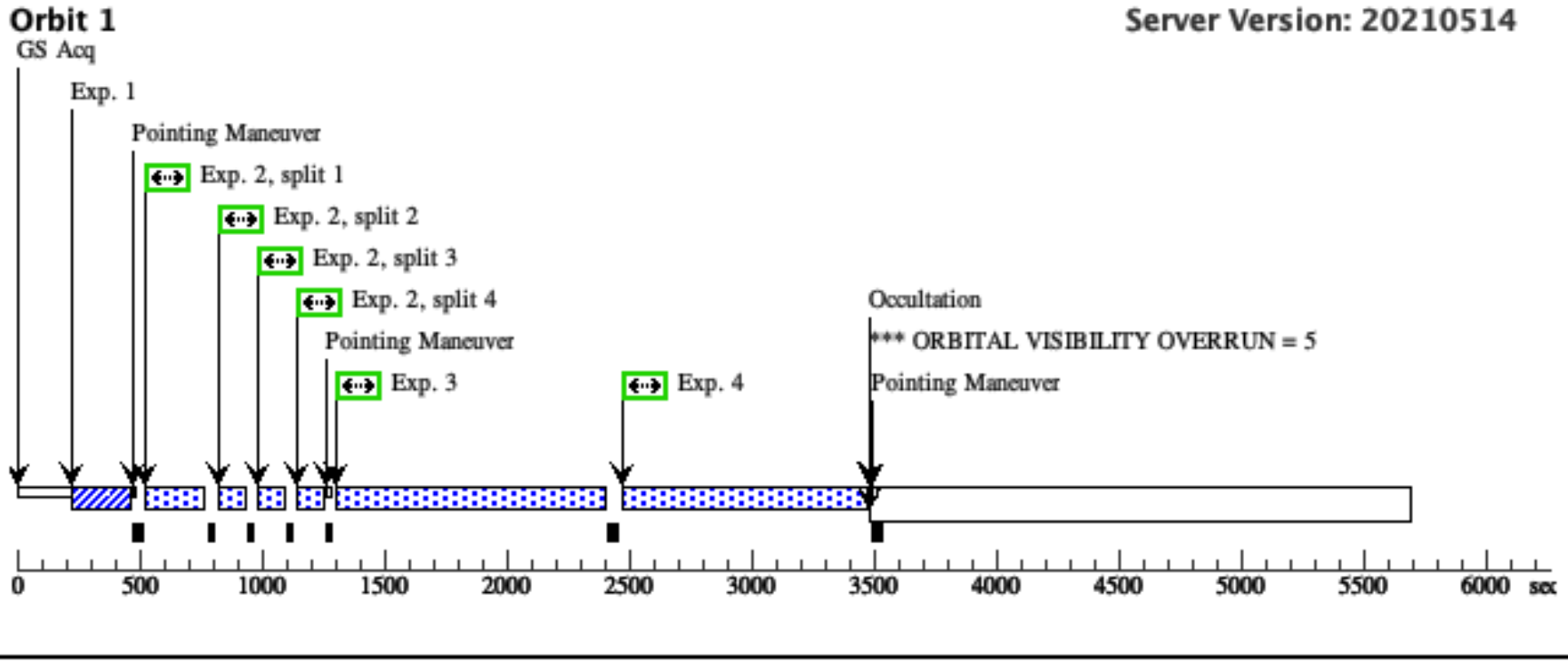
Several WFC HLA images (e.g. hst_12939_7s_acs_wfc_f555w)

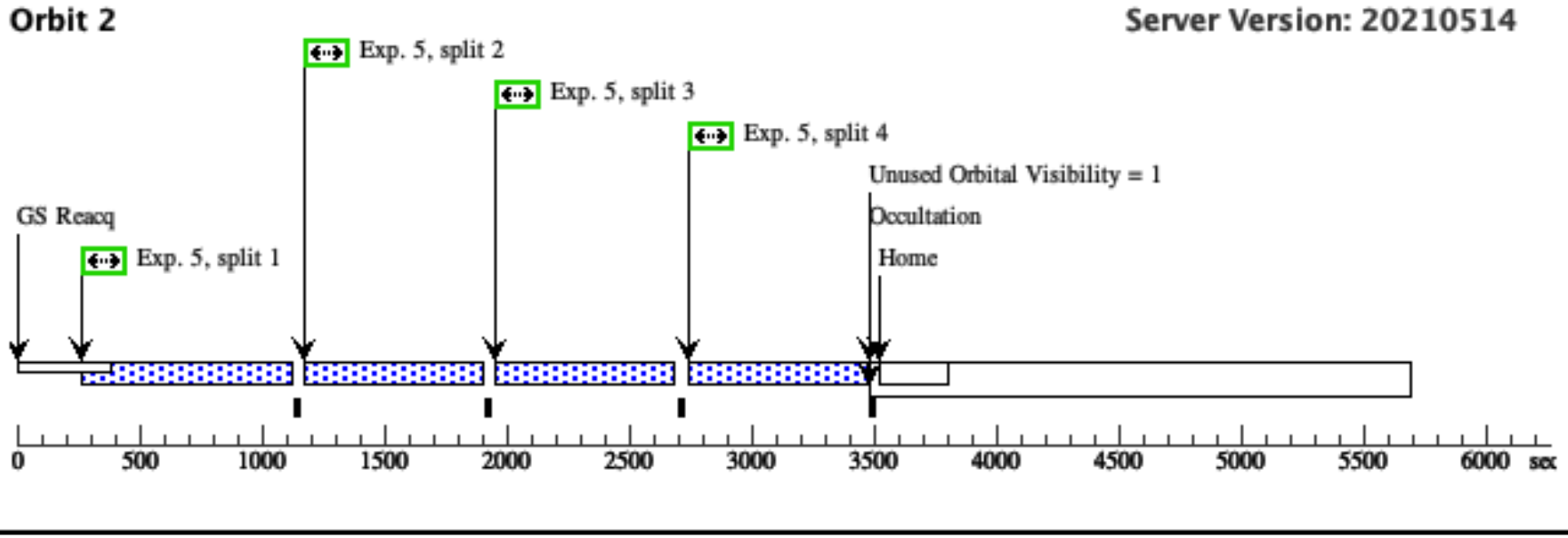
According to HLA image 12939_7d WFC3/UVIS F275W, target is heavily reddened, with a magnitude of ~19.83. The anticipated S/N is therefore 1-2.
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.1451596)	(14) BREY-70A	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				2.1393 Secs (2.139 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07, minimum foreground Galactic extinction https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf*								
2	(COS.sp.1451592)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=8628; FP-POS=ALL			500 Secs (224 Secs) *[==>56.0 Secs (Split 1)]* *[==>56.0 Secs (Split 2)]* *[==>56.0 Secs (Split 3)]* *[==>56.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 2000/4 for S/N ~2 at 1100Ang*								
3	(COS.sp.1451594)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3902; FP-POS=3			1500 Secs (951 Secs) *[==>951.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 3000/2 for S/N ~10 at 1250Ang*								
4	(COS.sp.1451594)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=3902; FP-POS=4			1500 Secs (951 Secs) *[==>951.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 3000/2 for S/N ~10 at 1250Ang*								
5	(COS.sp.1451595)	(14) BREY-70A	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=12921; FP-POS=ALL			1000 Secs (2712 Secs) *[==>678.0 Secs (Split 1)]* *[==>678.0 Secs (Split 2)]* *[==>678.0 Secs (Split 3)]* *[==>678.0 Secs (Split 4)]*	***[2]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~7000/4 for S/N ~10 at 1500Ang*								

Orbit Structure





Visit

Proposal 16272, Visit 15, scheduling Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: BAT99 269888. Aimed S/N > ~ 20 in continuum

Normalised according to flux@1300Ang ~ 1.5E-4 assuming EBV=0.34

S/N is ~2-10, lower than aimed at; see if extra orbits are available after dropping BAT99 69 (target 10)

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 15) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	HD-269888	RA: 05 37 44.6399 (84.4359996d) Dec: -69 14 25.67 (-69.24046d) Equinox: J2000	Proper Motion RA: 3.297157837102729E-4 sec of time/yr Proper Motion Dec: 5.949999999999999E-4 arcsec/yr Epoch of Position: 2015.5	V=14.628 U = 14.413	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

Extinction EBV = 0.07 + 0.27 = 0.34; https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf

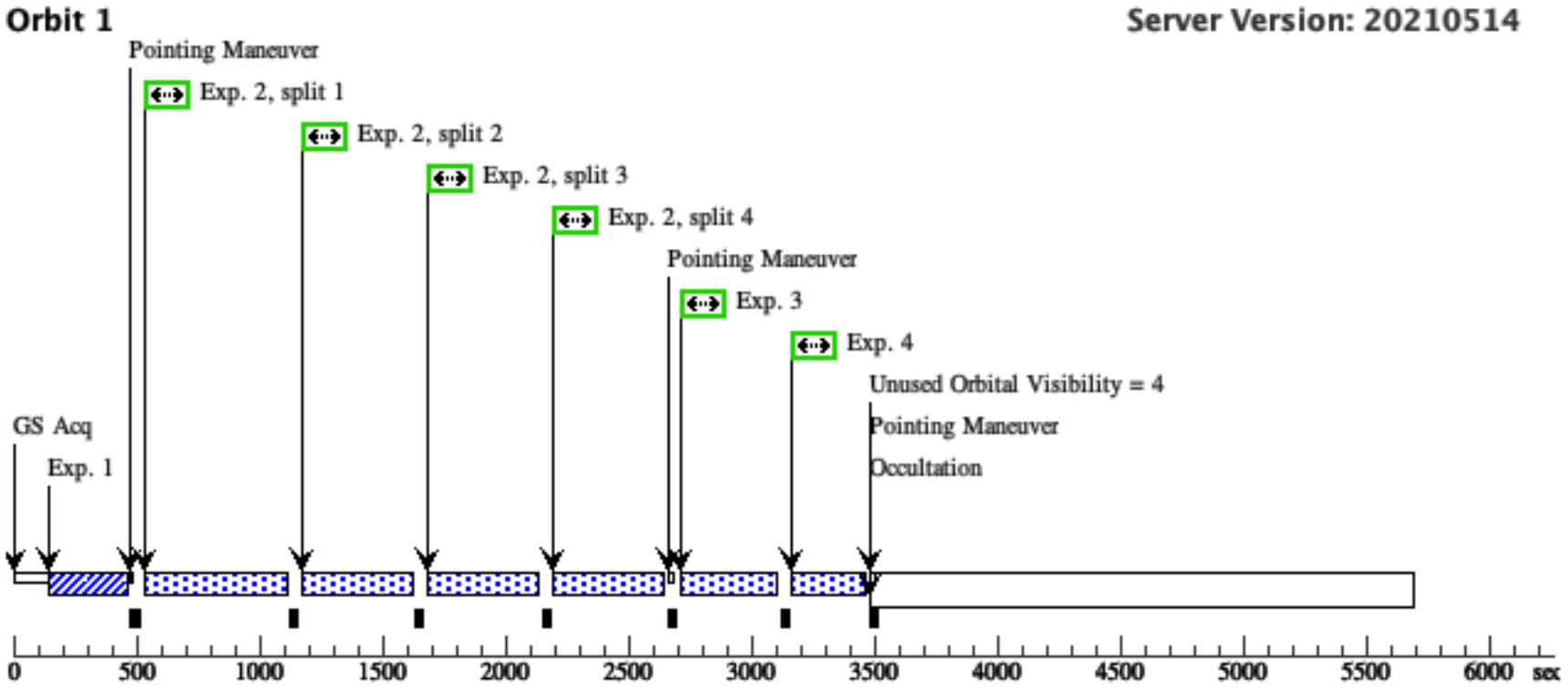
Bright (V<16mag) nearby stars within 20" (Gaia):
None

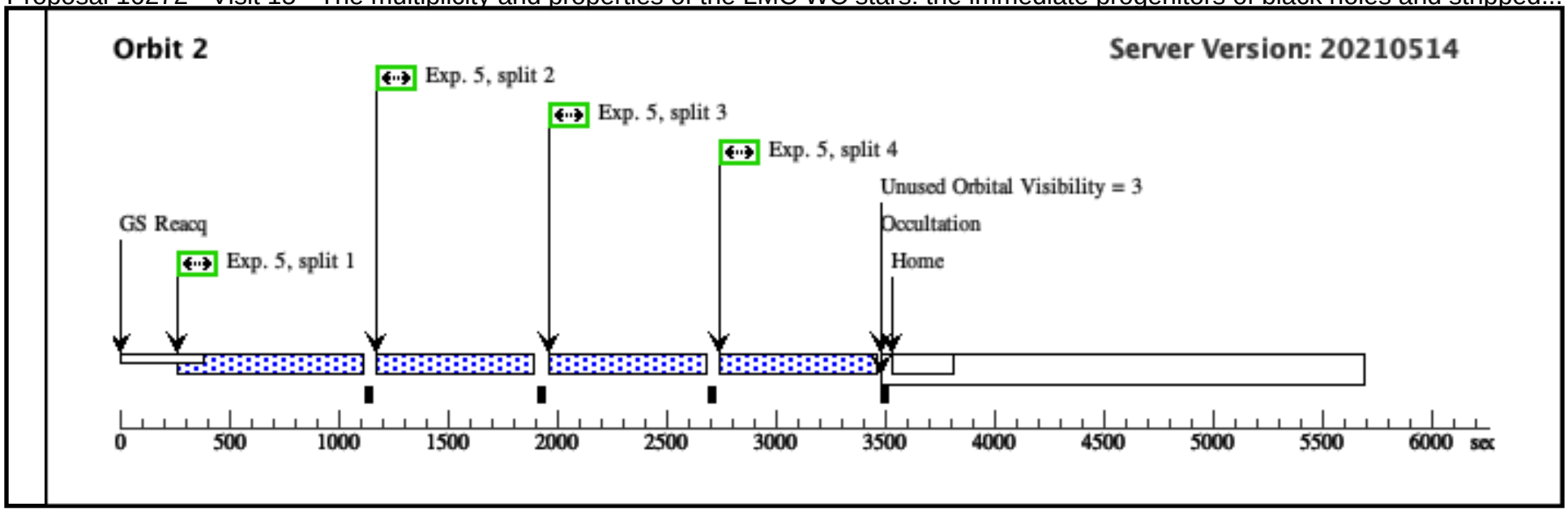
FOS/BL G130H observations, cont. flux (lam~1300Ang) ~ 1.5E-14; peak flux at 1171, 1555Ang, ~2E-13
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.1451601)	(15) HD-269888	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				4.3 Secs (4.3 Secs) *[==>]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.34 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)*								
2	(COS.sp.1451603)	(15) HD-269888	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=3328; FP-POS=ALL			500 Secs (1588 Secs) *[==>397.0 Secs (Split 1)]* *[==>397.0 Secs (Split 2)]* *[==>397.0 Secs (Split 3)]* *[==>397.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.34 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 2000/4 for S/N ~3 at 1100Ang*								
3	(COS.sp.1451605)	(15) HD-269888	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1963; FP-POS=3			350 Secs (247 Secs) *[==>247.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.34 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 700/2 for S/N ~10 at 1250Ang*								
4	(COS.sp.1451605)	(15) HD-269888	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1963; FP-POS=4			350 Secs (247 Secs) *[==>247.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.34 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 700/2 for S/N ~10 at 1250Ang*								
5	(COS.sp.1451607)	(15) HD-269888	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=3257; FP-POS=ALL			250 Secs (2680 Secs) *[==>670.0 Secs (Split 1)]* *[==>670.0 Secs (Split 2)]* *[==>670.0 Secs (Split 3)]* *[==>670.0 Secs (Split 4)]*	*[2]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~1000/4 for S/N ~10 at 1500Ang*								

Orbit Structure




Orbit 2
Server Version: 20210514
Exp. 5, split 2
Exp. 5, split 3
Exp. 5, split 4
Unused Orbital Visibility = 3
GS Reacq
Occultation
Exp. 5, split 1
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 16, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: BAT99 269888. Aimed S/N > ~ 20 in continuum

Normalised according to flux@1300Ang ~ 2E-13 assuming EBV=0.34

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 16) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 16) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 16) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(16)	HD-269891	RA: 05 37 49.0393 (84.4543304d) Dec: -69 05 8.21 (-69.08561d) Equinox: J2000	Proper Motion RA: 3.0515884273244083E-4 sec of time/yr Proper Motion Dec: 7.49E-4 arcsec/yr Epoch of Position: 2015.5	V=11.39 U = 11.791; Flux @ 1300Ang: ~ 2E-13 [cgs/A]	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

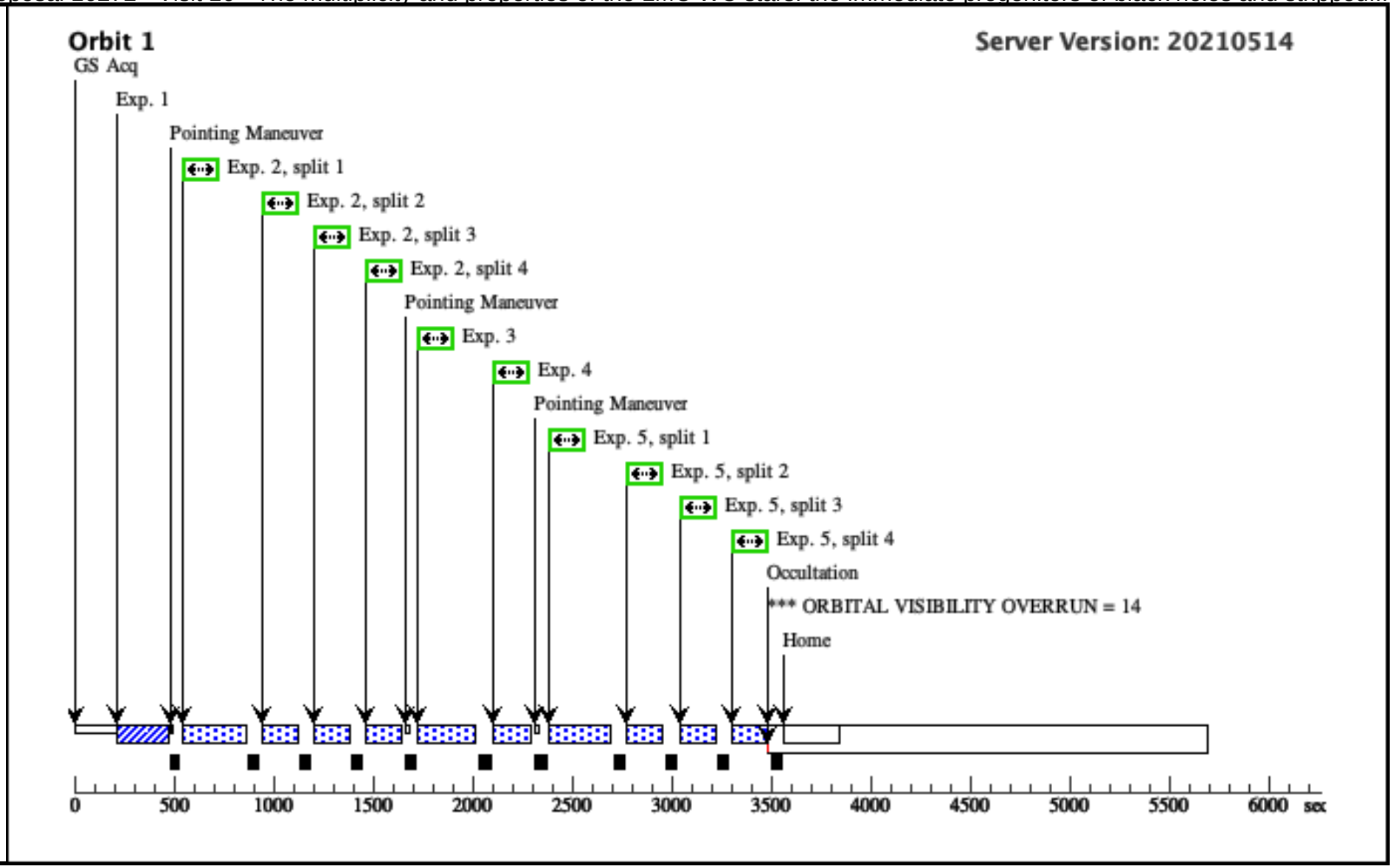
Bright (V<16mag) nearby stars within 20" (Gaia):
None

Extinction: E_B-V = 0.37; Shenar+2019 https://www.aanda.org/articles/aa/pdf/2019/07/aa35684-19.pdf
IUE (e.g. SWP04845): flux 1300Ang: ~2E-13 [cgs/A]
HLA / WFC images available, but saturated for target.
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.145 1625)	(16) HD-269891	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				8.9753 Secs (8.975 Secs) *[==>]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *BOA kept since no bright (V<16mag) sources in vicinity (20") are identified with Gaia.*								
2	(COS.sp.145 1619)	(16) HD-269891	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=375; FP-POS=ALL			140 Secs (516 Secs) *[==>129.0 Secs (Split 1)]* *[==>129.0 Secs (Split 2)]* *[==>129.0 Secs (Split 3)]* *[==>129.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 550/4 for S/N ~5 at 1100Ang*								
3	(COS.sp.145 1620)	(16) HD-269891	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=261; FP-POS=3			150 Secs (139 Secs) *[==>139.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~20 at 1250Ang*								
4	(COS.sp.145 1620)	(16) HD-269891	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=261; FP-POS=4			150 Secs (139 Secs) *[==>139.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 300/2 for S/N ~20 at 1250Ang*								
5	(COS.sp.145 1622)	(16) HD-269891	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=333; FP-POS=ALL			140 Secs (516 Secs) *[==>129.0 Secs (Split 1)]* *[==>129.0 Secs (Split 2)]* *[==>129.0 Secs (Split 3)]* *[==>129.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2019/07/aa35684-19.pdf)* *ExpTime ~550/4 for S/N ~20 at 1500Ang*								

Orbit Structure



Visit

Proposal 16272, Visit 17, failed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: Target: RMC 40 (BAT99 101+102). Aimed S/N > ~ 20 in continuum

Normalised according to flux@1300 ~ 1E-12 [erg/Ang] and extinction of 0.07 (absolute minimum given foreground Galactic extinction)

COS likely not feasible here due to crowding.

MAMA/STIS E140M proposed instead (similar wavelength coverage, better resolution, exposure time within limits given to brightness of target).

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(17)	RMC-140	RA: 05 38 41.6009 (84.6733371d) Dec: -69 05 13.43 (-69.08706d) Equinox: J2000	Epoch of Position: 2015.5	V=11.616 flux @ 1300Ang: ~1E-12 (cgs/A)	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Coordinates from Sabbi + 2016: https://ui.adsabs.harvard.edu/abs/2016ApJS..222...11S/abstract

Object claimed to be resolved WC+WN (BAT99 101 + 102) by Moffat+1987 (http://articles.adsabs.harvard.edu/pdf/1987ApJ...312..612M), but not confirmed by BAT+99.

Multiple bright stars within a few arcsec (including WR star BAT99 103)

IUE flux @ 1300 Ang (e.g. swp55225): ~1E-12 [cgs/Ang]
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

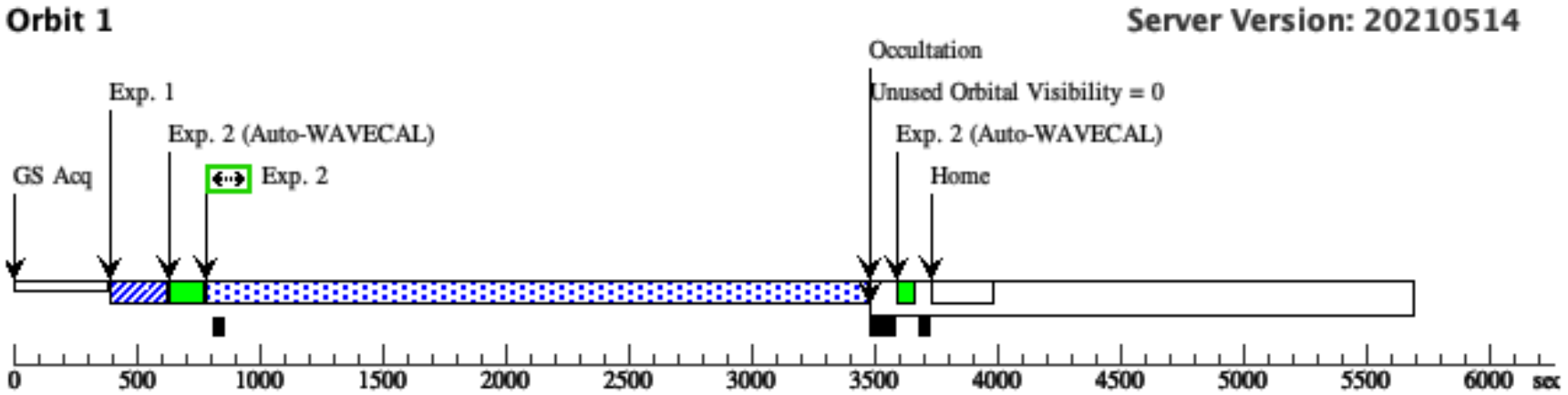
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.1457758)	(17) RMC-140	STIS/CCD, ACQ, F28X50LP	MIRROR				0.2 Secs (0.2 Secs) *[==>]*	 ***[1]***
2	(STIS.sp.1457763)	(17) RMC-140	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2600 Secs (2670 Secs) *[==>2670.0 Secs]*	 ***[1]***

Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)

Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)

Orbit Structure



Visit

Proposal 16272, VISIT 17 - REPEAT (59) Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: No Diagnostics

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

Special Requirements: (none)

Comments: Target: RMC 40 (BAT99 101+102). Aimed S/N > ~ 20 in continuum

Normalised according to flux@1300 ~ 1E-12 [erg/Ang] and extinction of 0.07 (absolute minimum given foreground Galactic extinction)

COS likely not feasible here due to crowding.

MAMA/STIS E140M proposed instead (similar wavelength coverage, better resolution, exposure time within limits given to brightness of target).

Repeat due to failed guide-star acquisition.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(17)	RMC-140	RA: 05 38 41.6009 (84.6733371d) Dec: -69 05 13.43 (-69.08706d) Equinox: J2000	Epoch of Position: 2015.5	V=11.616 flux @ 1300Ang: ~1E-12 (cgs/A)	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Coordinates from Sabbi + 2016: https://ui.adsabs.harvard.edu/abs/2016ApJS..222...11S/abstract

Object claimed to be resolved WC+WN (BAT99 101 + 102) by Moffat+1987 (http://articles.adsabs.harvard.edu/pdf/1987ApJ...312..612M), but not confirmed by BAT+99.

Multiple bright stars within a few arcsec (including WR star BAT99 103)

IUE flux @ 1300 Ang (e.g. swp55225): ~1E-12 [cgs/Ang]
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

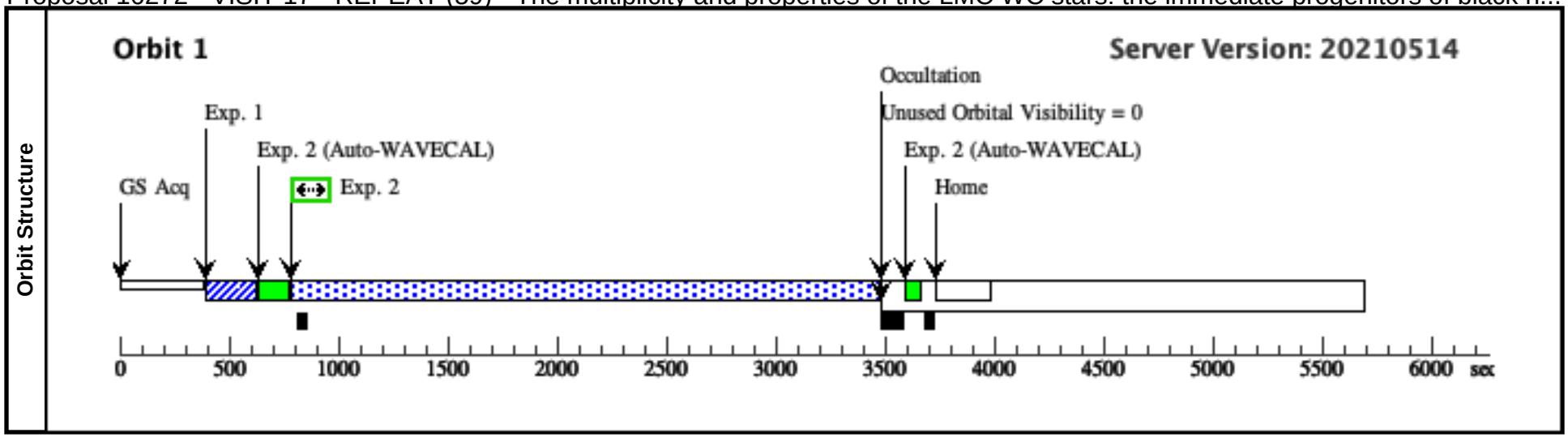
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.1457758)	(17) RMC-140	STIS/CCD, ACQ, F28X50LP	MIRROR				0.2 Secs (0.2 Secs) *[==>]*	 ***[1]***

Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	(STIS.sp.1457763)	(17) RMC-140	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2600 Secs (2670 Secs) *[==>2670.0 Secs]*	 ***[1]***

Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)


Orbit Structure
Orbit 1
Server Version: 20210514
Occultation
Exp. 1
Unused Orbital Visibility = 0
Exp. 2 (Auto-WAVECAL)
Exp. 2 (Auto-WAVECAL)
GS Acq
Exp. 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16272, Visit 19, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: BAT99 269888. Aimed S/N > ~ 20 in continuum

Normalised according to flux@1300Ang ~ 3E-4 assuming EBV=0.34

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 19) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 19) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 19) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(Visit 19) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(19)	BREY-90A	RA: 05 39 3.7812 (84.7657550d) Dec: -69 03 46.55 (-69.06293d) Equinox: J2000	Proper Motion RA: 2.516727661206006E-4 sec of time/yr Proper Motion Dec: 6.25E-4 arcsec/yr Epoch of Position: 2015.5	V=15.834 U = 16.190	Reference Frame: ICRS

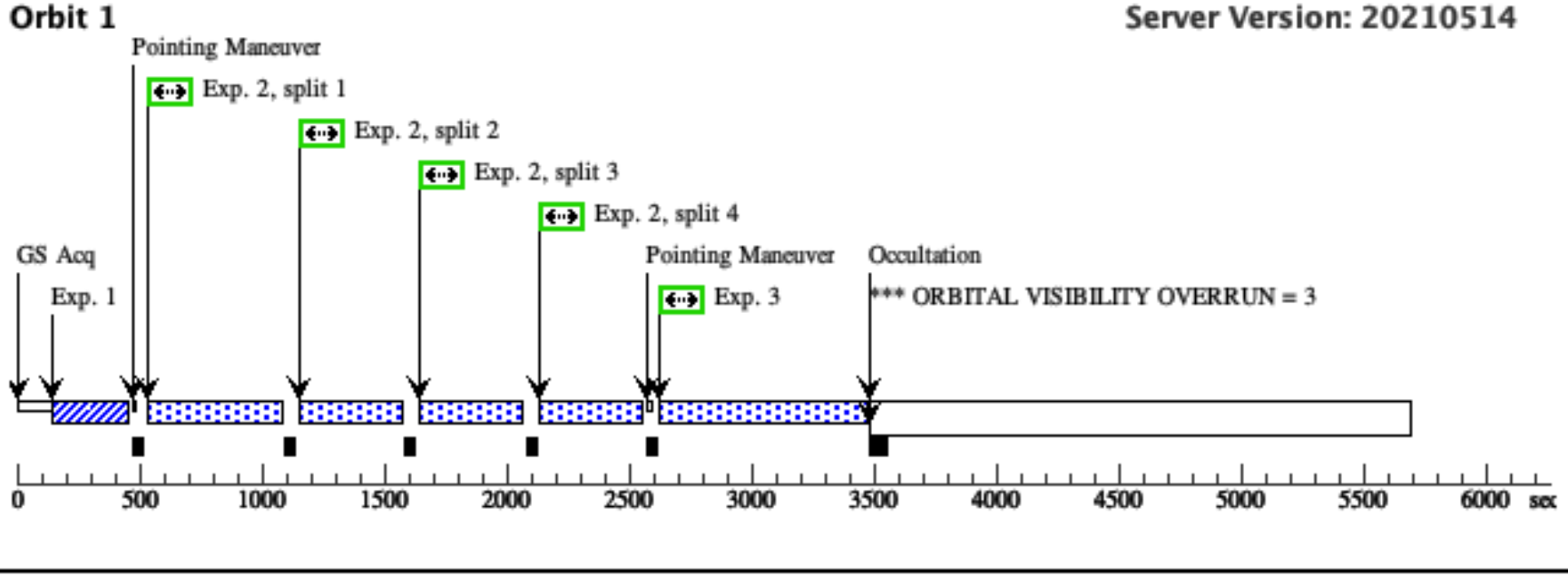
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

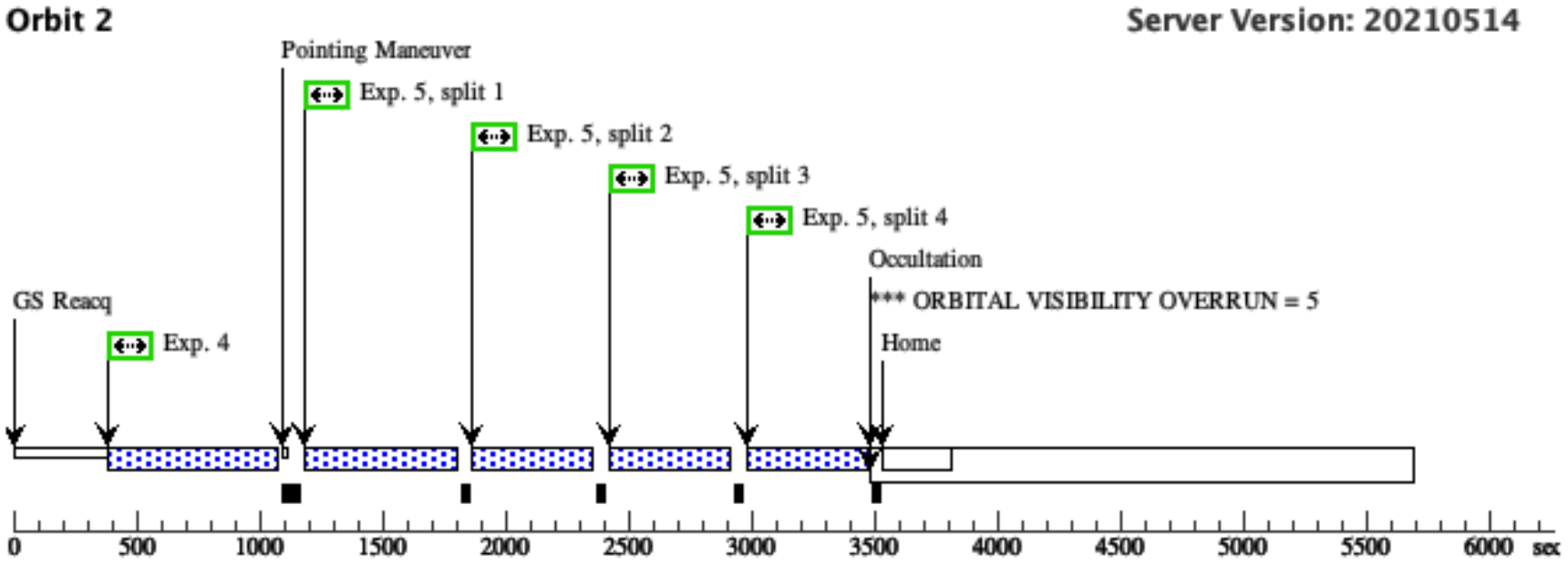
IUE swp11265: flux @ 1300 Ang ~ 3E-14
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.1451646)	(19) BREY-90A	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				3.5260 Secs (3.526 Secs) *[==>]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)*								
2	(COS.sp.1451648)	(19) BREY-90A	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=1557; FP-POS=ALL			270 Secs (1472 Secs) *[==>368.0 Secs (Split 1)]* *[==>368.0 Secs (Split 2)]* *[==>368.0 Secs (Split 3)]* *[==>368.0 Secs (Split 4)]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1100/4 for S/N ~5 at 1100Ang*								
3	(COS.sp.1451649)	(19) BREY-90A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1127; FP-POS=3			600 Secs (698 Secs) *[==>698.0 Secs]*	*[1]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1200/2 for S/N ~20 at 1250Ang*								
4	(COS.sp.1451649)	(19) BREY-90A	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1127; FP-POS=4			600 Secs (642 Secs) *[==>642.0 Secs]*	*[2]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1200/2 for S/N ~20 at 1250Ang*								
5	(COS.sp.1451651)	(19) BREY-90A	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=2633; FP-POS=ALL			400 Secs (1768 Secs) *[==>442.0 Secs (Split 1)]* *[==>442.0 Secs (Split 2)]* *[==>442.0 Secs (Split 3)]* *[==>442.0 Secs (Split 4)]*	*[2]*
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2019/07/aa35684-19.pdf)* *ExpTime ~2400/4 for S/N ~10 at 1500Ang*								

Orbit Structure





Visit

Proposal 16272, Visit 20, completed Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Comments: Target: HD 38448. Aimed S/N > ~ 20 in continuum

Normalised according to flux@1300Ang ~ 1E-13 assuming EBV=0.07

Nearaby source (sep ~0.5"), roughly 3mag fainter.

Exposure 1 = acquisition
Exposure 2 = G130 (1222); 4 sub-exposures (FP-POS = all)
Exposures 3+4 = G130 (1291): FP-POS 3+4 due to 2025 strategy
Exposure 5 = G160 (1623): 4 sub-exposures (FP-POS = all)

Diagnostics

(Visit 20) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

(Visit 20) Warning (Orbit Planner): COS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

(Visit 20) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(20)	HD-38448	RA: 05 39 56.1210 (84.9838375d) Dec: -69 24 24.23 (-69.40673d) Equinox: J2000	Proper Motion RA: 7.581536629375458E-4 sec of time/yr Proper Motion Dec: 0.0026 arcsec/yr Epoch of Position: 2015.5	V=12.996	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

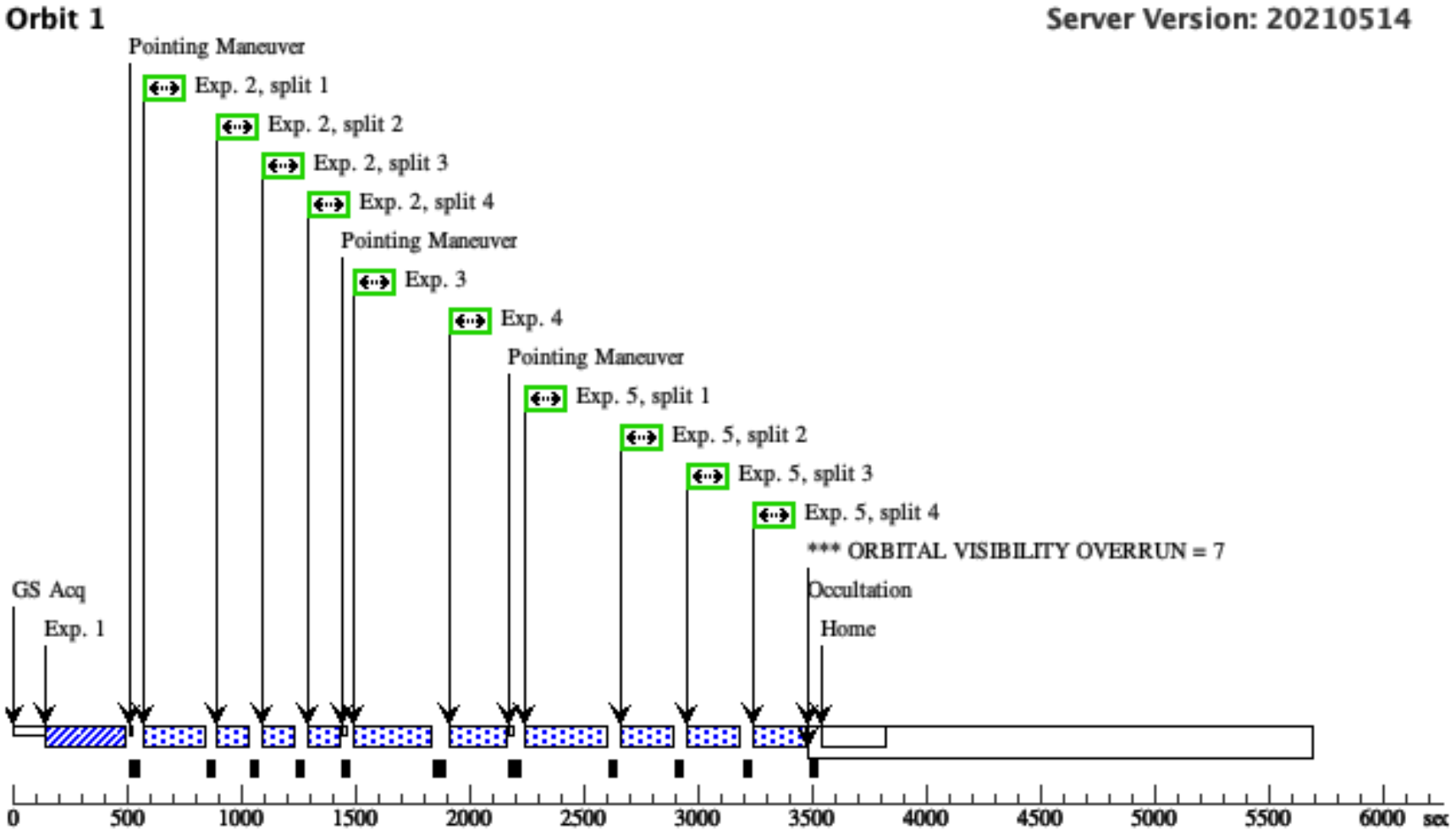
HLA F225W image reveals a neaby source (~0.5"). MAGAP2_16.576 (F225W);
Measured fluxes: MAGAP2_13.578 (F225W);

GHRS spectrum: Z19S0609M; flux @1300 ~ 1E-13
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.ta.1451654)	(20) HD-38448	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				23.2780 Secs (23.278 Secs) *[==>]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)*								
2	(COS.sp.1451655)	(20) HD-38448	COS/FUV, TIME-TAG, PSA	G130M 1222 A	BUFFER-TIME=577; FP-POS=ALL			115 Secs (332 Secs) *[==>83.0 Secs (Split 1)]* *[==>83.0 Secs (Split 2)]* *[==>83.0 Secs (Split 3)]* *[==>83.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.37 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 360/4 for S/N ~5 at 1100Ang*								
3	(COS.sp.1451657)	(20) HD-38448	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=453; FP-POS=3			225 Secs (193 Secs) *[==>193.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 450/2 for S/N ~20 at 1250Ang*								
4	(COS.sp.1451649)	(20) HD-38448	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=453; FP-POS=4			225 Secs (193 Secs) *[==>193.0 Secs]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)* *ExpTime ~ 1200/2 for S/N ~20 at 1250Ang*								
5	(COS.sp.1451658)	(20) HD-38448	COS/FUV, TIME-TAG, PSA	G160M 1623 A	BUFFER-TIME=1017; FP-POS=ALL			210 Secs (712 Secs) *[==>178.0 Secs (Split 1)]* *[==>178.0 Secs (Split 2)]* *[==>178.0 Secs (Split 3)]* *[==>178.0 Secs (Split 4)]*	***[1]***
	Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code. *Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2019/07/aa35684-19.pdf)* *ExpTime ~840/4 for S/N ~20 at 1500Ang*								

Orbit Structure



Visit

Proposal 16272, Visit 21, scheduled Mon Oct 11 18:01:12 GMT 2021

Diagnostic Status: Warning

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

Special Requirements: (none)

Comments: Target: HD 38448. Aimed S/N > ~ 20 in continuum

Normalised according to F225W_MAGAPR2=13.054, assuming EBV=0.07

Diagnostics

(Visit 21) Warning (Orbit Planner): STIS EXPOSURE TIME ROUNDED DOWN TO NEAREST 0.1 SECONDS

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(21)	BREY-95A	RA: 05 40 13.0000 (85.0541667d) Dec: -69 24 4.20 (-69.40117d) Equinox: J2000	Proper Motion RA: 0 sec of time/yr Proper Motion Dec: 0 arcsec/yr	V=13.3 F225W_MAGAPR2=13.054	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.

WFC/HST image available F225W; LH-104SOUTH;F225W_MAGAPR2=13.054.

Gaia + 2MASS images show that this WR has a nearby stellar source about 1" away. However, this source is not seen on the available F225W image -- potentially a bright giant that does not emit in the UV?

Coordinates updated from Neugent+2018, https://iopscience.iop.org/article/10.3847/1538-4357/aad17d/pdf; slightly adjusted based on HLA F255W image
Category=STAR
Description=[WOLF RAYET - WC]
Extended=NO

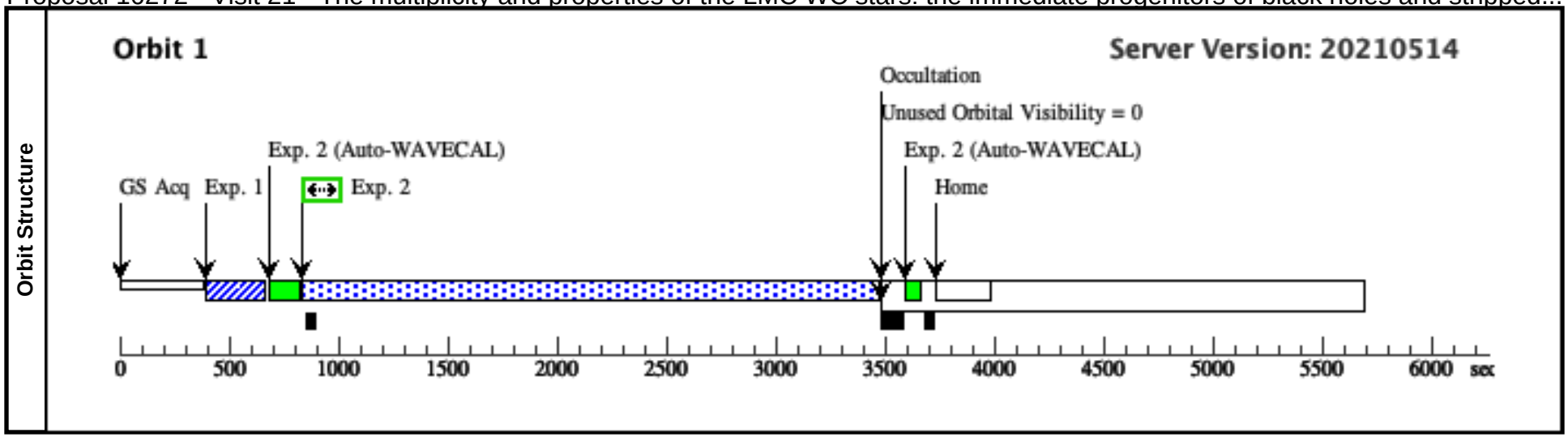
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(STIS.ta.1537720)	(21) BREY-95A	STIS/CCD, ACQ, F28X50OII	MIRROR				4.2377 Secs (4.238 Secs) *[==>]*	 ***[1]***

Comments: ETC input: tailored model atmosphere comprising WC + O binary calulcated with PoWR code.
Adopted extinction: EBV = 0.07 (https://www.aanda.org/articles/aa/pdf/2002/35/aa2677.pdf)

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	(STIS.sp.1479455)	(21) BREY-95A	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				2600 Secs (2623 Secs) *[==>2623.0 Secs]*	 ***[1]***

Comments: Expected S/N ~ 12 @1500A


Orbit Structure
Orbit 1
Server Version: 20210514
Occultation
Unused Orbital Visibility = 0
Exp. 2 (Auto-WAVECAL)
Exp. 2 (Auto-WAVECAL)
GS Acq
Exp. 1
Exp. 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec