15914 - Searching for white dwarfs orbiting BSSs: the fossil evidence of the mass transfer formation process

Cycle: 27, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) NGC104-BSS1-2	ACS/SBC	4	10-Nov-2021 16:00:16.0	yes
02	(2) NGC104-BSS3	ACS/SBC	4	10-Nov-2021 16:00:19.0	yes
03	(3) NGC104-BSS4	ACS/SBC	4	10-Nov-2021 16:00:21.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
04	(4) NGC104-BSS5	ACS/SBC	4	10-Nov-2021 16:00:23.0	yes
53	(3) NGC104-BSS4	ACS/SBC	4	10-Nov-2021 16:00:25.0	yes
54	(4) NGC104-BSS5	ACS/SBC	4	10-Nov-2021 16:00:27.0	yes
55	(3) NGC104-BSS4	ACS/SBC	1	10-Nov-2021 16:00:28.0	yes
56	(3) NGC104-BSS4	ACS/SBC	1	10-Nov-2021 16:00:28.0	yes

26 Total Orbits Used

ABSTRACT

The UV excess recently observed for 7 Blue Straggler Stars (BSSs) in the open cluster NGC188 (Gosnell et al. 2015, ApJ 814, 163) has been interpreted as the photometric signature of hot and young white dwarf (WD) companions. This result suggests that those BSSs have been recently formed through mass-transfer (MT) activity in binary systems. On the other hand, Ferraro et al. (2006, ApJ 467, L56) discovered that a sub-sample of BSSs in 47 Tucanae shows carbon (C) and oxygen (O) depletion with respect to normal cluster stars. This feature has been considered as a (possibly transient) chemical signature of recent MT from a companion star, in which case the observed BSSs should be orbited by hot He-WDs.

Here we propose ACS/SBC far-UV photometry of five CO-depleted BSSs in 47 Tucanae, to search for their suspected WD companions. This will be the first observational evidence of the link between the two signatures, thus allowing a significant step forward in the characterization of the BSS MT formation channel. In fact, the WD cooling time will provide empirical estimates of the characteristic time-scale of the CO-depletion phase, which is a key input for the physical modeling of the evolutionary path of BSSs formed through this channel.

OBSERVING DESCRIPTION

The observations are organized in 4 visits of 4 orbits each.
Each visit consists of 6 exposures in the F140LP, 7 exposures in the F150LP and 3 exposures in the F165LP.
Exposures are dithered by few subarcseconds (a few pixels).

In visits 2-3-4 the targets are located at the SBC-LODARK aperture according to the instrument handbook.
In visit 1 (which is aimed to observe two BSSs in one pointing) the coordinates of the pointing correspond to the barycenter of the two targets, and

the selected aperture is SBC-FIX in order to keep both BSSs within the FOV for any telescope orientation.

Visit

Proposal 15914, BSS1-2 (01), completed Wed Nov 10 21:00:29 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS1-2 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS1-2 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS1-2 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS1-2 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC104-BSS1-2	RA: 00 24 9.7900 (6.0407917d) Dec: -72 04 52.90 (-72.08136d) Equinox: J2000		V=16.7	Reference Frame: ICRS

Comments: This pointing is aimed to observe within the same FOV the two following targets:
NGC104-BSS1 --> RA: +00 24 07.89 Dec: -72 05 01.77 V=16.7
NGC104-BSS2 --> RA: +00 24 11.69 Dec: -72 04 44.11 V=16.8
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	150_E (ACS.im.1368094)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.078,0.078		733 Secs (733 Secs) *[==>]*	 ***[1]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 data.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	150_F (ACS.im.1368094)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.157,0.156		733 Secs (733 Secs) *[==>]*	 ***[1]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 data.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	150_G (ACS.im.1368094)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.006,0.065		733 Secs (733 Secs) *[==>]*	 ***[1]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 data.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

4	150_D (ACS.im.13 68094)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F150LP	POS TARG -0.084,0 .082	732 Secs (732 Secs) *[==>]*	**[1]**

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

5	140_D (ACS.im.13 68092)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F140LP	SAME POS AS 4	743 Secs (743 Secs) *[==>]*	**[2]**

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

6	140_E (ACS.im.13 68092)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F140LP	SAME POS AS 1	743 Secs (743 Secs) *[==>]*	**[2]**

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

7	140_A (ACS.im.13 68092)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F140LP		742 Secs (742 Secs)	
						[==>]	***[2]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

8	165_A (ACS.im.13 68095)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F165LP	SAME POS AS 7	750 Secs (750 Secs)	
						[==>]	***[2]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

9	150_A (ACS.im.13 68094)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F150LP	SAME POS AS 7	743 Secs (743 Secs)	
						[==>]	***[3]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

10	150_C (ACS.im.13 68094)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F150LP	POS TARG 0.084,0.143	743 Secs (743 Secs) *[==>]*	 ***[3]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

11	150_B (ACS.im.13 68094)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F150LP	POS TARG 0.168,0.062	742 Secs (742 Secs) *[==>]*	 ***[3]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

12	165_B (ACS.im.13 68095)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F165LP	SAME POS AS 11	750 Secs (750 Secs) *[==>]*	 ***[3]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

13	140_B (ACS.im.13 68092)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F140LP	SAME POS AS 11	740 Secs (740 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

14	140_F (ACS.im.13 68092)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F140LP	SAME POS AS 2	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

15	140_C (ACS.im.13 68092)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F140LP	SAME POS AS 10	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

	16	165_C (ACS.im.13 68095)	(1) NGC104-BSS1-2	ACS/SBC, ACCUM, SBC-FIX	F165LP	SAME POS AS 10	750 Secs (750 Secs) *[==>]*	 ***[4]***

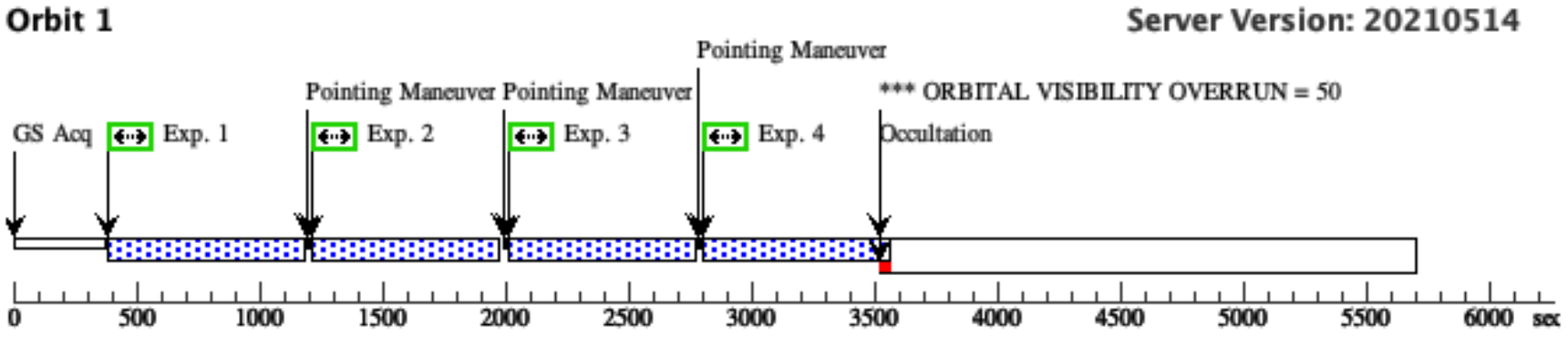
Comments: BOT results:
Global GSC2 rate= No field level check(s) performed
Global GALEX rate= No field level check(s) performed

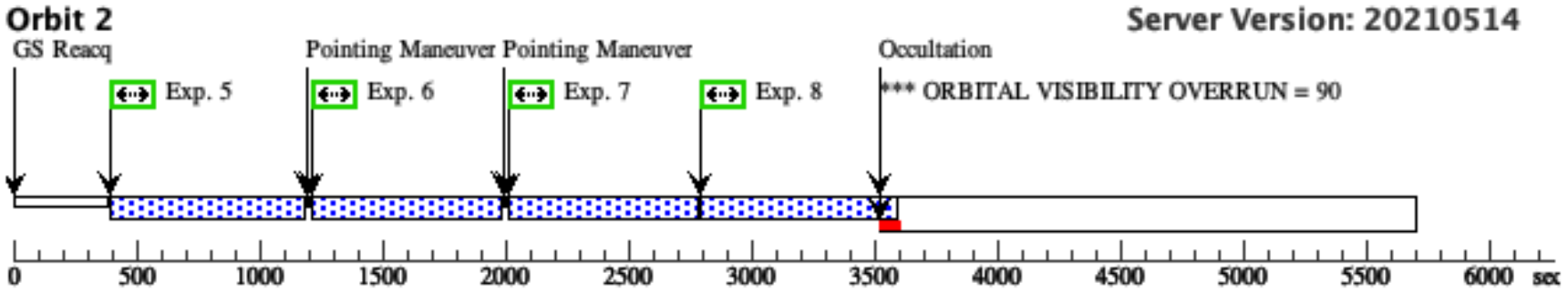
For the brightest and hottest objects located within the circle checked by the BOT tool and visible as bright sources in the GALEX images in the Aladin tool, we list below the magnitudes measured from HST/WFC3 da ta.

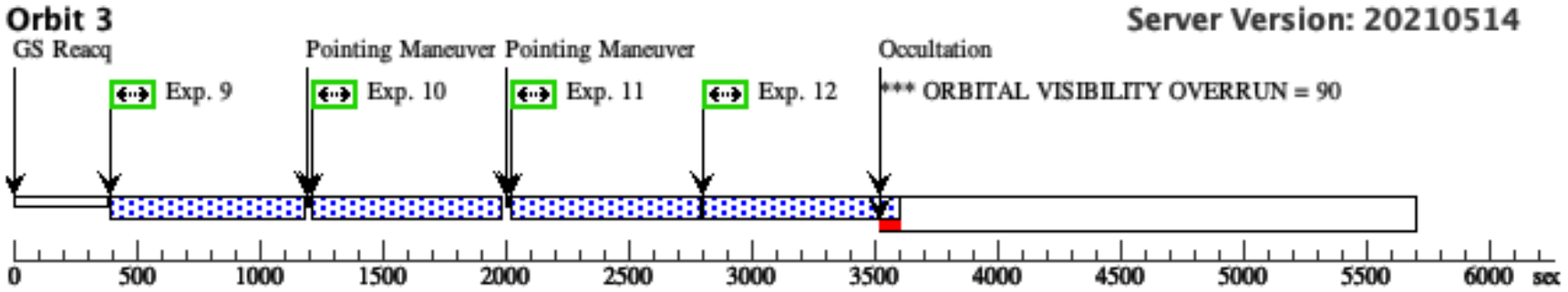
Star 1 (located outside the SBC FoV at ~30 " SW from the SBC-FIX aperture) has F300X=17.06 and F390W=18.78.
The blend in the NW corner of the SBC-FoV, at roughly 20" from the SBC-FIX aperture, is made of two components:
one with F300X=18.01 and F390W=19.83, the other with F300X=18.74 and F390W=20.51.

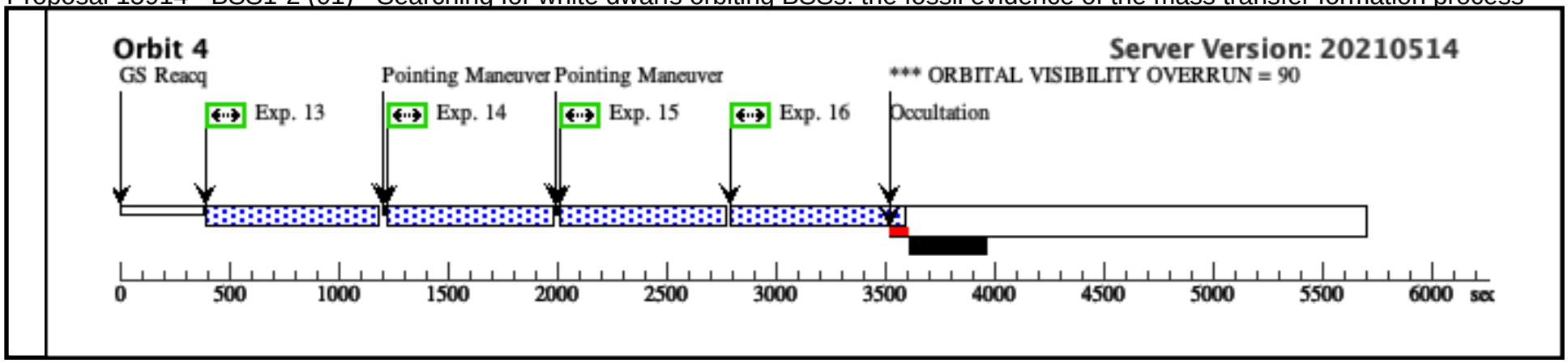
WARNING: According to ETC simulations, Star 1 reaches ~ 25000 counts/second/pixel only in the F140LP filter.

Orbit Structure





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Pointing Maneuver
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Exp. 14
Exp. 15
Exp. 16
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15914, BSS3 (02), completed Wed Nov 10 21:00:29 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS3 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS3 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS3 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS3 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	NGC104-BSS3	RA: 00 24 4.3900 (6.0182917d) Dec: -72 00 35.90 (-72.00997d) Equinox: J2000		V=16.6	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	150_E (ACS.im.13 68094)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.078,0.078		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 8.883E0 counts/s - SAFE* *Global GALEX rate= 1.7523E1 counts/s - SAFE* *Some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV* *SAFE in BOT, F-lambda=2.86e-16*								
2	150_F (ACS.im.13 68094)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.157,0.156		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 8.883E0 counts/s - SAFE* *Global GALEX rate= 1.7523E1 counts/s - SAFE* *Some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV* *SAFE in BOT, F-lambda=2.86e-16*								
3	150_G (ACS.im.13 68094)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.006,0.065		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 8.883E0 counts/s - SAFE* *Global GALEX rate= 1.7523E1 counts/s - SAFE* *Some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV* *SAFE in BOT, F-lambda=2.86e-16*								
4	150_D (ACS.im.13 68094)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG -0.084,0.082		732 Secs (732 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 8.883E0 counts/s - SAFE* *Global GALEX rate= 1.7523E1 counts/s - SAFE* *Some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV* *SAFE in BOT, F-lambda=2.86e-16*								
5	140_D (ACS.im.13 68092)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F140LP		SAME POS AS 4		743 Secs (743 Secs) *[==>]*	 ***[2]***
	Comments: BOT results: *Global GSC2 rate= 5.5813E1 counts/s - SAFE* *Global GALEX rate= 7.2663E1 counts/s - SAFE* *Some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV* *SAFE in BOT, F-lambda=2.86e-16*								

6	140_E (ACS.im.13 68092)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 1	743 Secs (743 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 5.5813E1 counts/s - SAFE
Global GALEX rate= 7.2663E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

7	140_A (ACS.im.13 68092)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F140LP		742 Secs (742 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 5.5813E1 counts/s - SAFE
Global GALEX rate= 7.2663E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

8	165_A (ACS.im.13 68095)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 7	750 Secs (750 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 8.8805E0 counts/s - SAFE
Global GALEX rate= 1.0934E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

9	150_A (ACS.im.13 68094)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F150LP	SAME POS AS 7	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 8.883E0 counts/s - SAFE
Global GALEX rate= 1.7523E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

10	150_C (ACS.im.13 68094)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.084,0.143	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 8.883E0 counts/s - SAFE
Global GALEX rate= 1.7523E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

11	150_B (ACS.im.13 68094)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.168,0.062	742 Secs (742 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 8.883E0 counts/s - SAFE
Global GALEX rate= 1.7523E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

12	165_B (ACS.im.13 68095)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 11	750 Secs (750 Secs) *[==>]*	 ***[3]***

Comments: BOT results:
Global GSC2 rate= 8.8805E0 counts/s - SAFE
Global GALEX rate= 1.0934E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

13	140_B (ACS.im.13 68092)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 11	740 Secs (740 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 5.5813E1 counts/s - SAFE
Global GALEX rate= 7.2663E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

14	140_F (ACS.im.13 68092)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 2	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 5.5813E1 counts/s - SAFE
Global GALEX rate= 7.2663E1 counts/s - SAFE

Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

15	140_C (ACS.im.13 68092)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 10	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 5.5813E1 counts/s - SAFE
Global GALEX rate= 7.2663E1 counts/s - SAFE

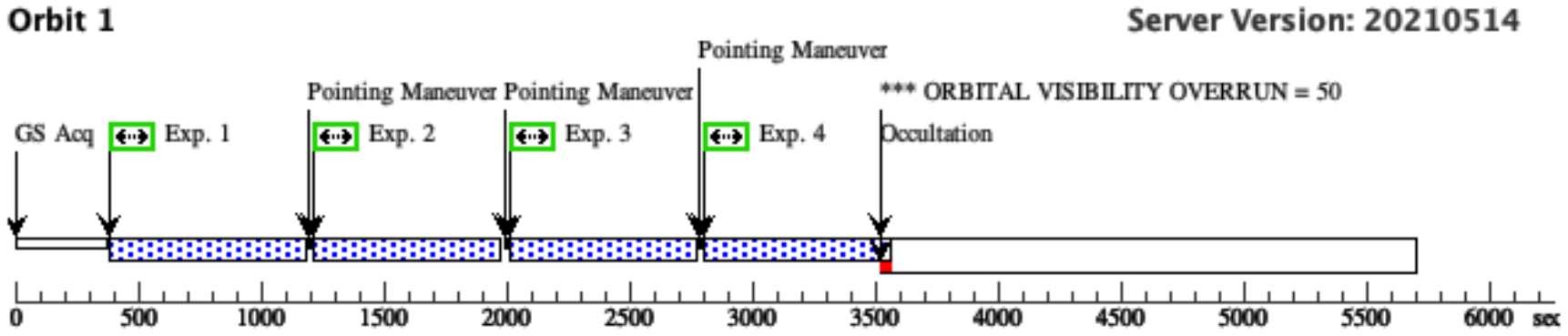
Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

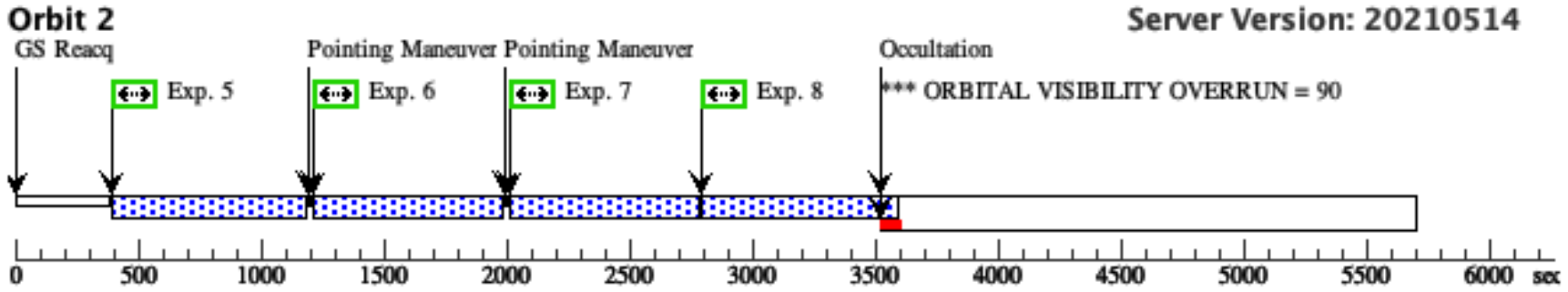
16	165_C (ACS.im.13 68095)	(2) NGC104-BSS3	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 10	750 Secs (750 Secs) *[==>]*	 ***[4]***

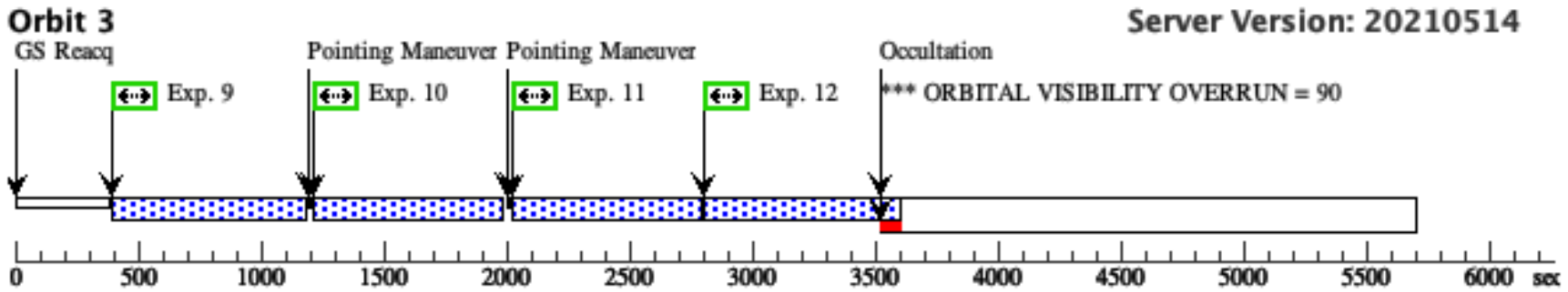
Comments: BOT results:
Global GSC2 rate= 8.8805E0 counts/s - SAFE
Global GALEX rate= 1.0934E1 counts/s - SAFE

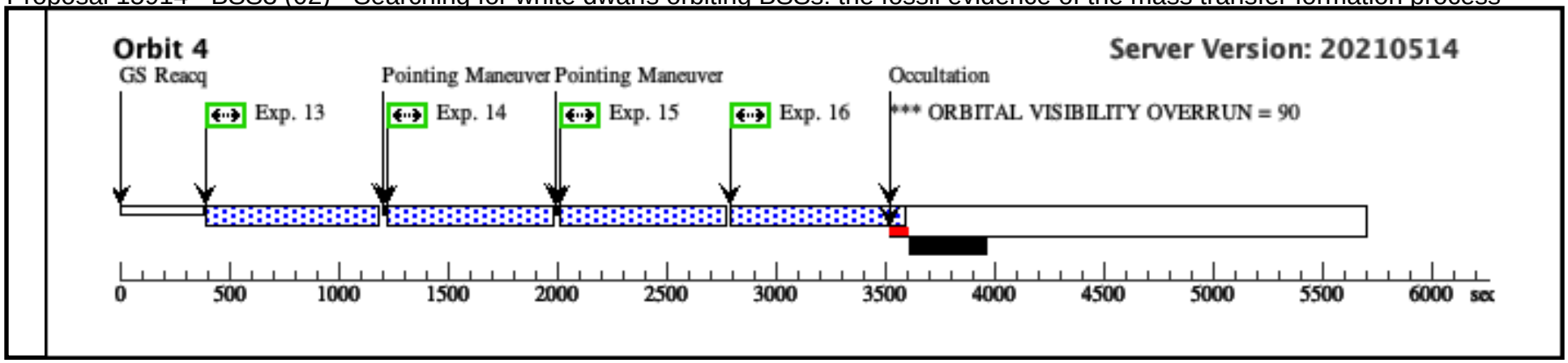
Some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002359.6-720109, FUV=20.55, not detected in NUV
SAFE in BOT, F-lambda=2.86e-16

Orbit Structure





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Exp. 13
Exp. 14
Exp. 15
Exp. 16
*** ORBITAL VISIBILITY OVERRUN = 90
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15914, BSS4 (03), failed Wed Nov 10 21:00:29 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS4 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS4 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS4 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS4 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC104-BSS4	RA: 00 23 14.6300 (5.8109583d) Dec: -72 07 37.06 (-72.12696d) Equinox: J2000		V=16.7	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	150_E (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.078,0.078		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
2	150_F (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.157,0.156		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
3	150_G (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.006,0.065		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
4	150_D (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG -0.084,0.082		732 Secs (732 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
5	140_D (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		SAME POS AS 4		743 Secs (743 Secs) *[==>]*	 ***[2]***
	Comments: BOT results: *Global GSC2 rate= 3.0485E4 counts/s - SAFE* *Global GALEX rate= 1.1046E2 counts/s - SAFE* *2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								

6	140_E (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 1	743 Secs (743 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

7	140_A (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		742 Secs (742 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

8	165_A (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 7	750 Secs (750 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 3.1799E3 counts/s - SAFE
Global GALEX rate= 1.557E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

9	150_A (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP	SAME POS AS 7	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 1.3276E4counts/s - SAFE
Global GALEX rate= 3.692E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

10	150_C (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.084,0.143	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 1.3276E4counts/s - SAFE
Global GALEX rate= 3.692E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

11	150_B (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.168,0.062	742 Secs (742 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 1.3276E4counts/s - SAFE
Global GALEX rate= 3.692E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

12	165_B (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 11	750 Secs (750 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 3.1799E3 counts/s - SAFE
Global GALEX rate= 1.557E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

13	140_B (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 11	740 Secs (740 Secs) *[==>]*	***[4]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

14	140_F (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 2	739 Secs (739 Secs) *[==>]*	***[4]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

15	140_C (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 10	739 Secs (739 Secs) *[==>]*	***[4]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

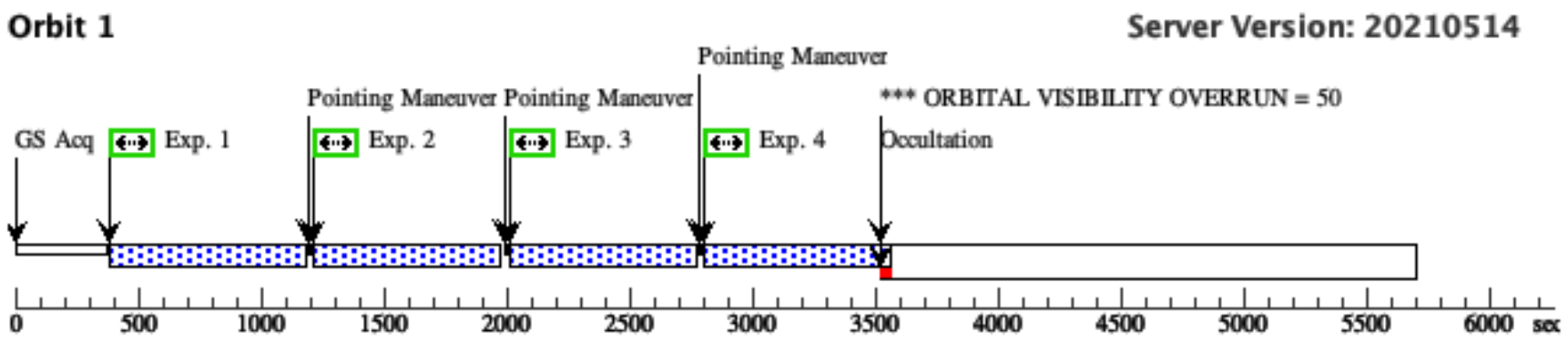
2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

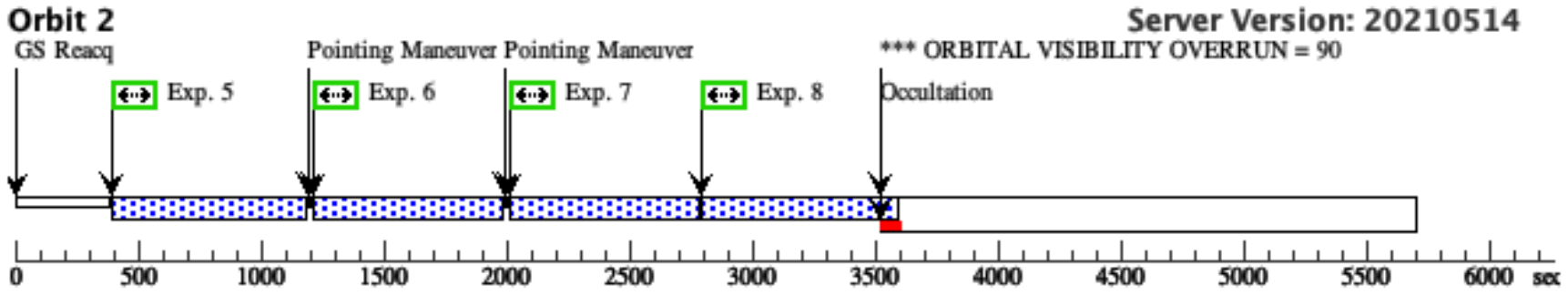
16	165_C (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 10	750 Secs (750 Secs) *[==>]*	***[4]***

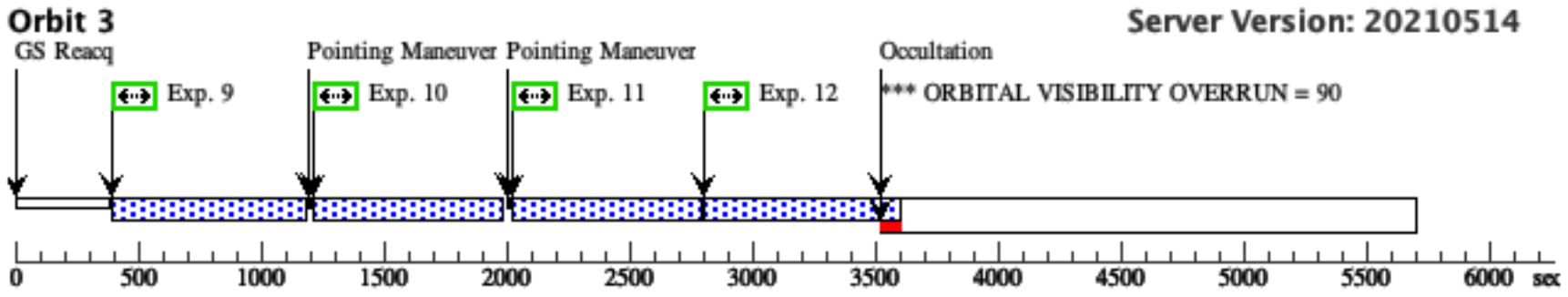
Comments: BOT results:
Global GSC2 rate= 3.1799E3 counts/s - SAFE
Global GALEX rate= 1.557E1 counts/s - SAFE

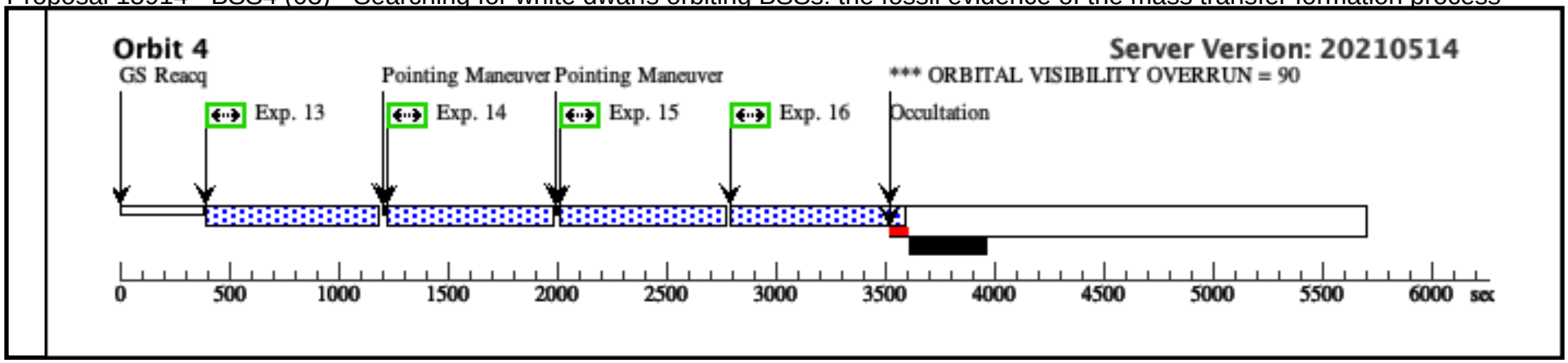
1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

Orbit Structure





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Pointing Maneuver
Pointing Maneuver
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Exp. 14
Exp. 15
Exp. 16
Occultation
0
500
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1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15914, BSS5 (04), failed Wed Nov 10 21:00:29 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS5 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS5 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS5 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS5 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	NGC104-BSS5	RA: 00 26 10.4700 (6.5436250d) Dec: -72 11 7.64 (-72.18546d) Equinox: J2000		V=16.5	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	150_E (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.078,0.078		733 Secs (733 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
2	150_F (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.157,0.156		733 Secs (733 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
3	150_G (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.006,0.065		733 Secs (733 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
4	150_D (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG -0.084,0.082		732 Secs (732 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
5	140_D (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP		SAME POS AS 4		743 Secs (743 Secs) *[==>]*	***[2]***
	Comments: BOT results: *Global GSC2 rate= 1.2995E5counts/s - SAFE* *Global GALEX rate= 3.0437E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								

6	140_E (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 1	743 Secs (743 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

7	140_A (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP		742 Secs (742 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

8	165_A (ACS.im.13 68095)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 7	750 Secs (750 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 9.8694E3counts/s - SAFE
Global GALEX rate= 3.8544E1 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

9	150_A (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP	SAME POS AS 7	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 6.2739E4counts/s - SAFE
Global GALEX rate= 1.3644E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

10	150_C (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.084,0.143	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 6.2739E4counts/s - SAFE
Global GALEX rate= 1.3644E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

11	150_B (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.168,0.062	742 Secs (742 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 6.2739E4counts/s - SAFE
Global GALEX rate= 1.3644E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

12	165_B (ACS.im.13 68095)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 11	750 Secs (750 Secs) *[==>]*	 ***[3]***

Comments: BOT results:
Global GSC2 rate= 9.8694E3counts/s - SAFE
Global GALEX rate= 3.8544E1 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

13	140_B (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 11	740 Secs (740 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

14	140_F (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 2	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

15	140_C (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 10	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

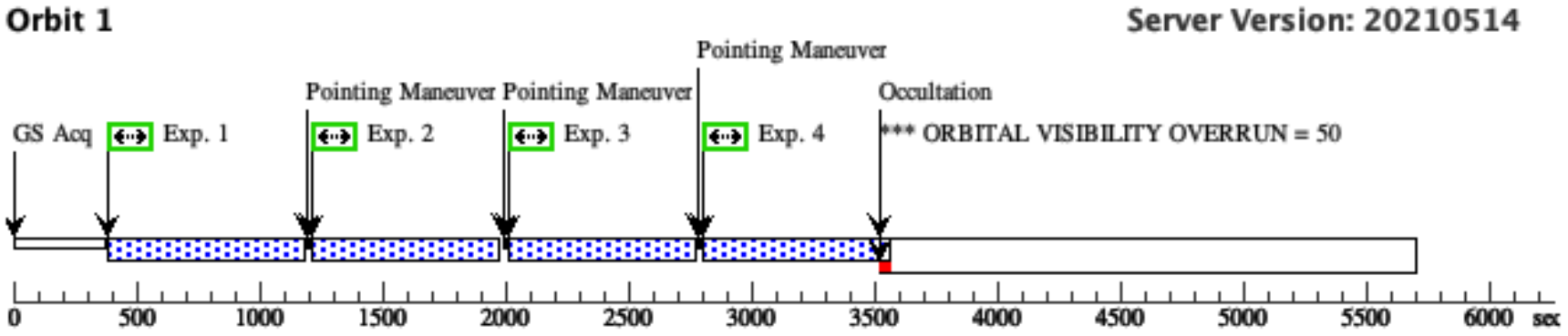
Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

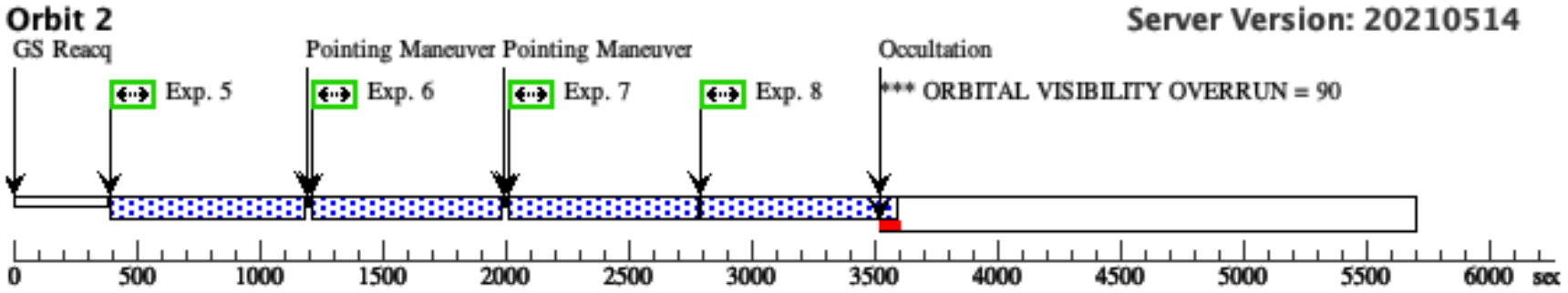
16	165_C (ACS.im.13 68095)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 10	750 Secs (750 Secs) *[==>]*	 ***[4]***

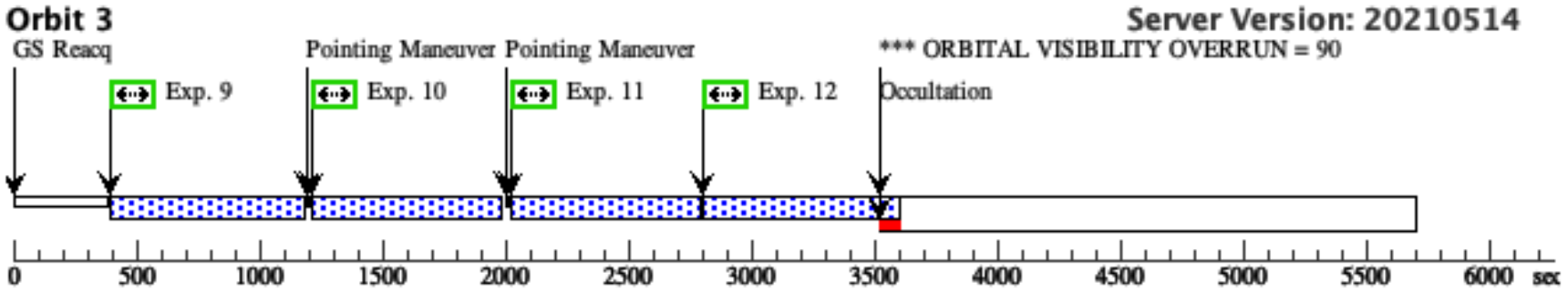
Comments: BOT results:
Global GSC2 rate= 9.8694E3counts/s - SAFE
Global GALEX rate= 3.8544E1 counts/s - SAFE

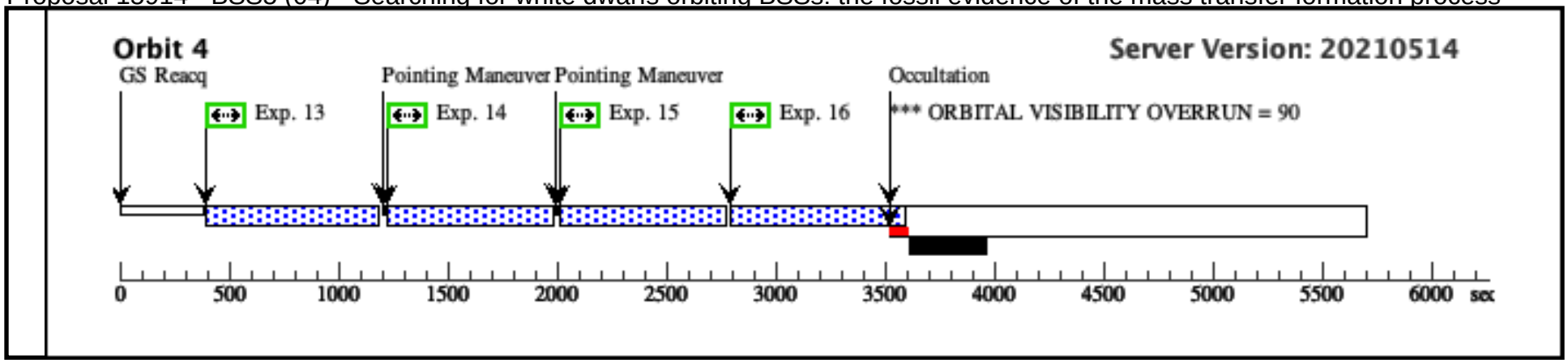
Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

Orbit Structure





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500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Proposal 15914 - BSS4 (53) - Searching for white dwarfs orbiting BSSs: the fossil evidence of the mass transfer formation process

Visit

Proposal 15914, BSS4 (53), failed Wed Nov 10 21:00:29 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS4 (53)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS4 (53)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS4 (53)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS4 (53)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC104-BSS4	RA: 00 23 14.6300 (5.8109583d) Dec: -72 07 37.06 (-72.12696d) Equinox: J2000		V=16.7	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	150_E (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.078,0.078		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
2	150_F (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.157,0.156		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
3	150_G (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.006,0.065		733 Secs (733 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
4	150_D (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG -0.084,0.082		732 Secs (732 Secs) *[==>]*	 ***[1]***
	Comments: BOT results: *Global GSC2 rate= 1.3276E4counts/s - SAFE* *Global GALEX rate= 3.692E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
5	140_D (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		SAME POS AS 4		743 Secs (743 Secs) *[==>]*	 ***[2]***
	Comments: BOT results: *Global GSC2 rate= 3.0485E4 counts/s - SAFE* *Global GALEX rate= 1.1046E2 counts/s - SAFE* *2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								

6	140_E (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 1	743 Secs (743 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

7	140_A (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		742 Secs (742 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

8	165_A (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 7	750 Secs (750 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 3.1799E3 counts/s - SAFE
Global GALEX rate= 1.557E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

9	150_A (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP	SAME POS AS 7	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 1.3276E4counts/s - SAFE
Global GALEX rate= 3.692E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

10	150_C (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.084,0.143	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 1.3276E4counts/s - SAFE
Global GALEX rate= 3.692E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

11	150_B (ACS.im.13 68094)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.168,0.062	742 Secs (742 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 1.3276E4counts/s - SAFE
Global GALEX rate= 3.692E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

12	165_B (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 11	750 Secs (750 Secs) *[==>]*	 ***[3]***

Comments: BOT results:
Global GSC2 rate= 3.1799E3 counts/s - SAFE
Global GALEX rate= 1.557E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

13	140_B (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 11	740 Secs (740 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

14	140_F (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 2	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

15	140_C (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 10	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

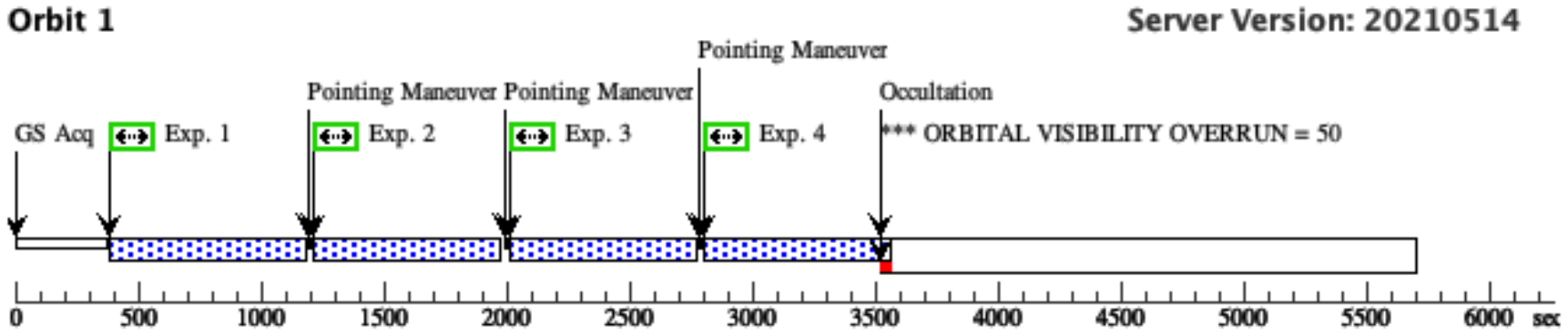
2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

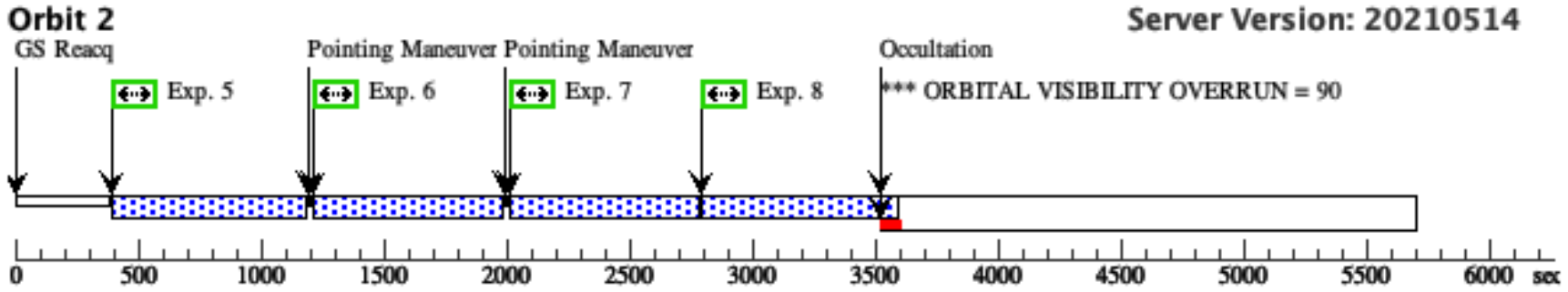
16	165_C (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 10	750 Secs (750 Secs) *[==>]*	 ***[4]***

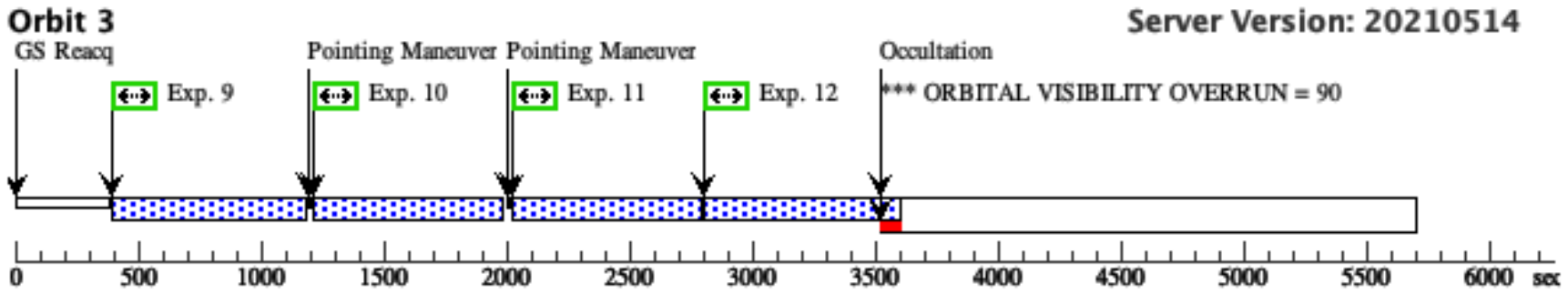
Comments: BOT results:
Global GSC2 rate= 3.1799E3 counts/s - SAFE
Global GALEX rate= 1.557E1 counts/s - SAFE

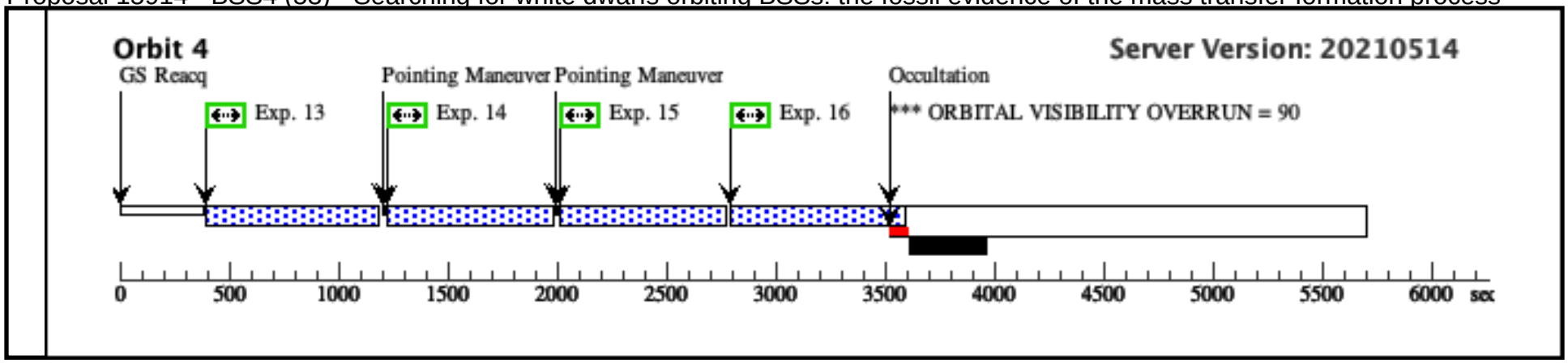
1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

Orbit Structure





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*** ORBITAL VISIBILITY OVERRUN = 90
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 15914, BSS5 (54), completed Wed Nov 10 21:00:30 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS5 (54)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS5 (54)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS5 (54)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(BSS5 (54)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	NGC104-BSS5	RA: 00 26 10.4700 (6.5436250d) Dec: -72 11 7.64 (-72.18546d) Equinox: J2000		V=16.5	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	150_E (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.078,0.078		733 Secs (733 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
2	150_F (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.157,0.156		733 Secs (733 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
3	150_G (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG 0.006,0.065		733 Secs (733 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
4	150_D (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP		POS TARG -0.084,0.082		732 Secs (732 Secs) *[==>]*	***[1]***
	Comments: BOT results: *Global GSC2 rate= 6.2739E4counts/s - SAFE* *Global GALEX rate= 1.3644E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								
5	140_D (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP		SAME POS AS 4		743 Secs (743 Secs) *[==>]*	***[2]***
	Comments: BOT results: *Global GSC2 rate= 1.2995E5counts/s - SAFE* *Global GALEX rate= 3.0437E2 counts/s - SAFE* *Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.* *Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV* *SAFE in BOT, F-lambda=4.2e-16*								

6	140_E (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 1	743 Secs (743 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

7	140_A (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP		742 Secs (742 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

8	165_A (ACS.im.13 68095)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 7	750 Secs (750 Secs) *[==>]*	***[2]***

Comments: BOT results:
Global GSC2 rate= 9.8694E3counts/s - SAFE
Global GALEX rate= 3.8544E1 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

9	150_A (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP	SAME POS AS 7	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 6.2739E4counts/s - SAFE
Global GALEX rate= 1.3644E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

10	150_C (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.084,0.143	743 Secs (743 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 6.2739E4counts/s - SAFE
Global GALEX rate= 1.3644E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

11	150_B (ACS.im.13 68094)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F150LP	POS TARG 0.168,0.062	742 Secs (742 Secs) *[==>]*	***[3]***

Comments: BOT results:
Global GSC2 rate= 6.2739E4counts/s - SAFE
Global GALEX rate= 1.3644E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

12	165_B (ACS.im.13 68095)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 11	750 Secs (750 Secs) *[==>]*	 ***[3]***

Comments: BOT results:
Global GSC2 rate= 9.8694E3counts/s - SAFE
Global GALEX rate= 3.8544E1 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

13	140_B (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 11	740 Secs (740 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

14	140_F (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 2	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

15	140_C (ACS.im.13 68092)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F140LP	SAME POS AS 10	739 Secs (739 Secs) *[==>]*	 ***[4]***

Comments: BOT results:
Global GSC2 rate= 1.2995E5counts/s - SAFE
Global GALEX rate= 3.0437E2 counts/s - SAFE

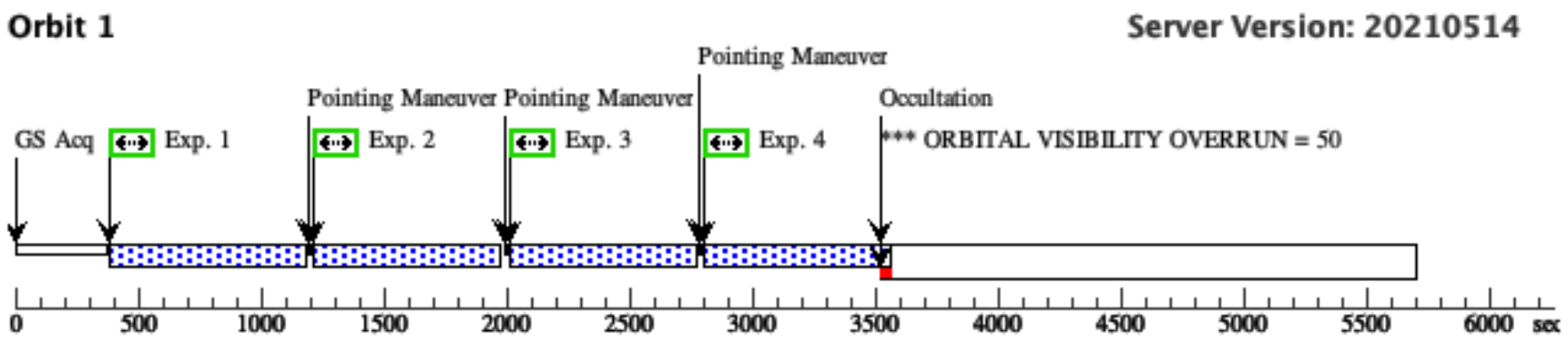
Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

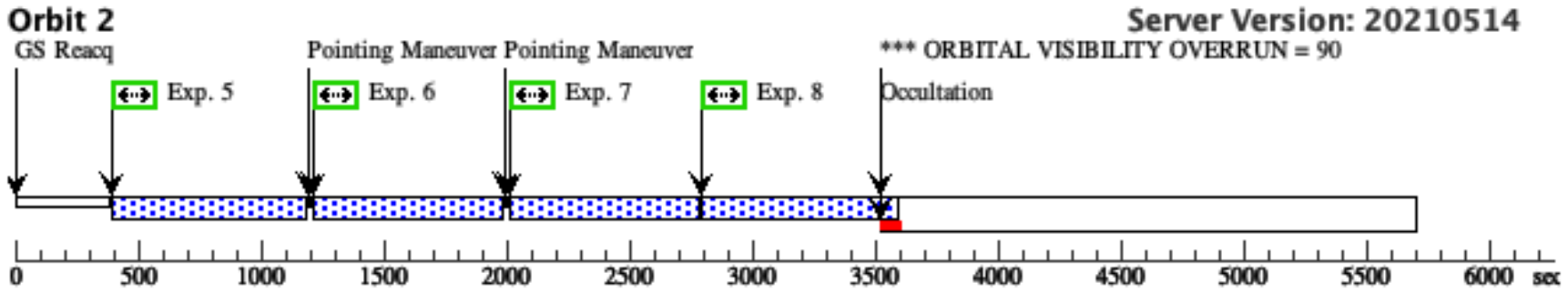
16	165_C (ACS.im.13 68095)	(4) NGC104-BSS5	ACS/SBC, ACCUM, SBC-LODARK	F165LP	SAME POS AS 10	750 Secs (750 Secs) *[==>]*	 ***[4]***

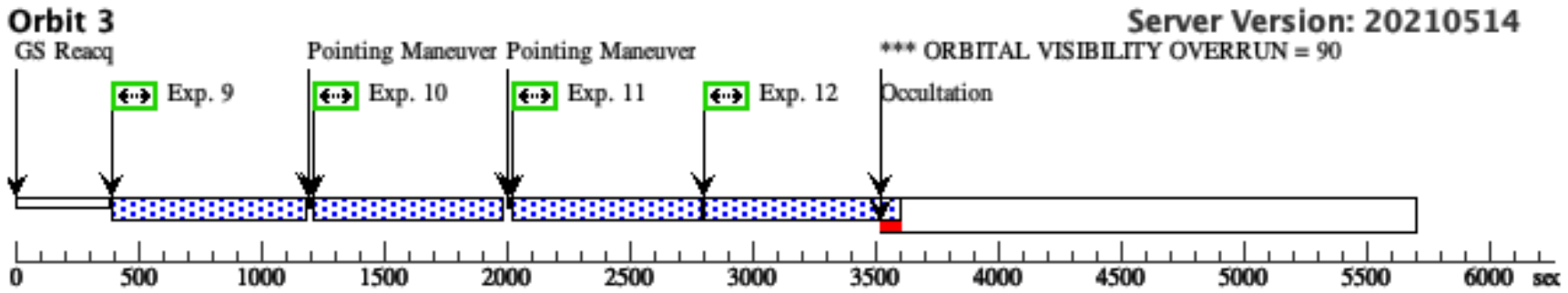
Comments: BOT results:
Global GSC2 rate= 9.8694E3counts/s - SAFE
Global GALEX rate= 3.8544E1 counts/s - SAFE

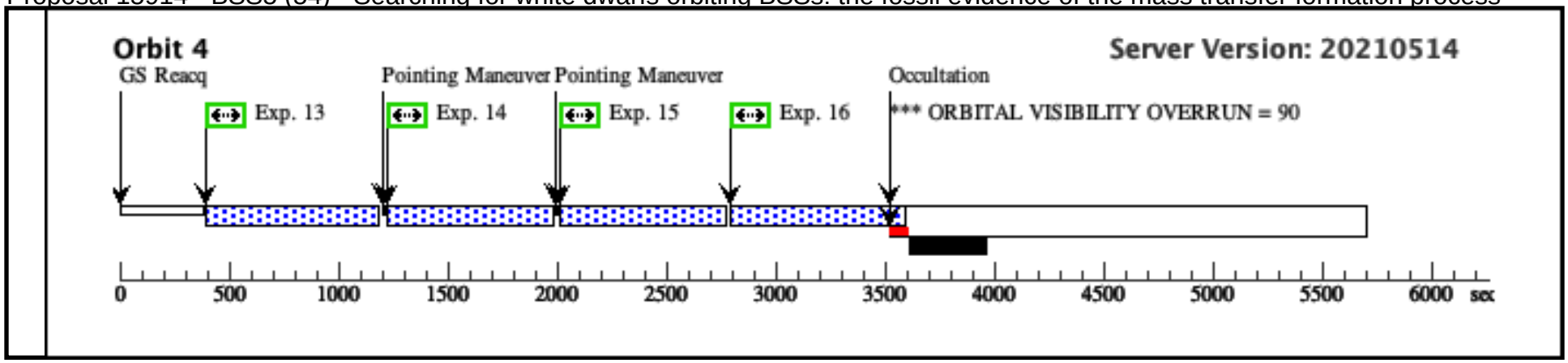
Some health/Safety objects (assumed O5 stars) and some unknown objects in GSC2.
Brightest GALEX object in the field: GALEX J002602.0-721056, NUV=19.33, not detected in FUV
SAFE in BOT, F-lambda=4.2e-16

Orbit Structure








Orbit 4
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GS Reacq
Pointing Maneuver
Pointing Maneuver
Occultation
Exp. 13
Exp. 14
Exp. 15
Exp. 16
*** ORBITAL VISIBILITY OVERRUN = 90
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sec

Visit

Proposal 15914, BSS4 (55), failed Wed Nov 10 21:00:30 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS4 (55)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

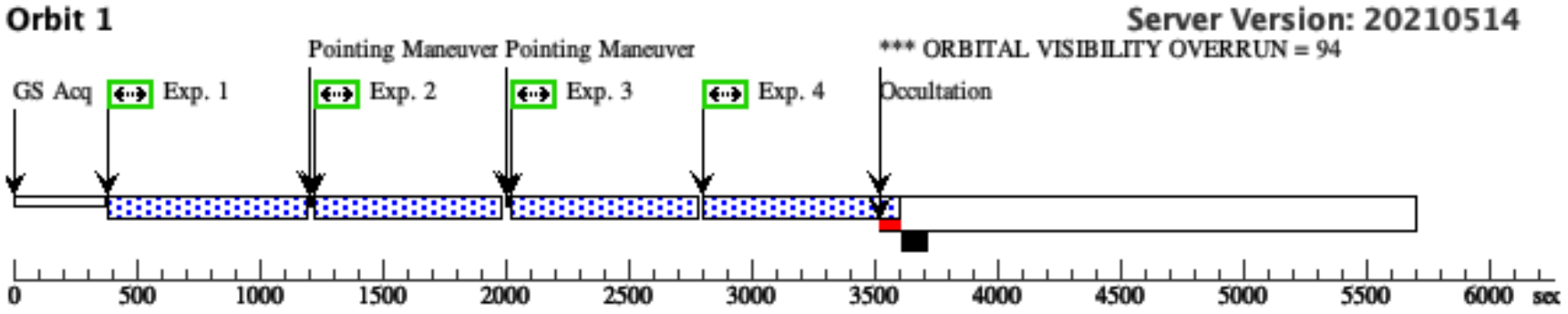
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC104-BSS4	RA: 00 23 14.6300 (5.8109583d) Dec: -72 07 37.06 (-72.12696d) Equinox: J2000		V=16.7	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	140_B (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		POS TARG 0.168,0.062		740 Secs (740 Secs) *[==>]*	*[1]*
	Comments: BOT results: *Global GSC2 rate= 3.0485E4 counts/s - SAFE* *Global GALEX rate= 1.1046E2 counts/s - SAFE* *2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
2	140_F (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		POS TARG 0.157,0.156		739 Secs (739 Secs) *[==>]*	*[1]*
	Comments: BOT results: *Global GSC2 rate= 3.0485E4 counts/s - SAFE* *Global GALEX rate= 1.1046E2 counts/s - SAFE* *2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
3	140_C (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		POS TARG 0.084,0.143		739 Secs (739 Secs) *[==>]*	*[1]*
	Comments: BOT results: *Global GSC2 rate= 3.0485E4 counts/s - SAFE* *Global GALEX rate= 1.1046E2 counts/s - SAFE* *2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								
4	165_C (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP		SAME POS AS 3		750 Secs (750 Secs) *[==>]*	*[1]*
	Comments: BOT results: *Global GSC2 rate= 3.1799E3 counts/s - SAFE* *Global GALEX rate= 1.557E1 counts/s - SAFE* *1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .* *Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV* *SAFE in BOT, F-lambda=5.11e-16*								

Orbit Structure



Visit

Proposal 15914, BSS4 (56) Wed Nov 10 21:00:30 GMT 2021

Diagnostic Status: Warning

Scientific Instruments: ACS/SBC

Special Requirements: (none)

Diagnostics

(BSS4 (56)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC104-BSS4	RA: 00 23 14.6300 (5.8109583d) Dec: -72 07 37.06 (-72.12696d) Equinox: J2000		V=16.7	Reference Frame: ICRS

Comments:
Category=STAR
Description=[BLUE STRAGGLER]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	140_B (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		POS TARG 0.168,0.062		740 Secs (740 Secs) *[==>]*	*[1]*

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
2	140_F (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		POS TARG 0.157,0.156		739 Secs (739 Secs) *[==>]*	*[1]*

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
3	140_C (ACS.im.13 68092)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F140LP		POS TARG 0.084,0.143		739 Secs (739 Secs) *[==>]*	*[1]*

Comments: BOT results:
Global GSC2 rate= 3.0485E4 counts/s - SAFE
Global GALEX rate= 1.1046E2 counts/s - SAFE

2 health/Safety objects (assumed O5 stars) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
4	165_C (ACS.im.13 68095)	(3) NGC104-BSS4	ACS/SBC, ACCUM, SBC-LODARK	F165LP		SAME POS AS 3		750 Secs (750 Secs) *[==>]*	*[1]*

Comments: BOT results:
Global GSC2 rate= 3.1799E3 counts/s - SAFE
Global GALEX rate= 1.557E1 counts/s - SAFE

1 health/Safety object (assumed O5 star) and several unknown objects in GSC2 .
Brightest GALEX object in the field: GALEX J002312.2-720719, FUV=19.92, not detected in NUV
SAFE in BOT, F-lambda=5.11e-16

Orbit Structure