



16209 - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emission imaging

Cycle: 28, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) SBS-0335-052	ACS/SBC	2	26-Oct-2021 10:00:22.0	yes
61	(1) SBS-0335-052	ACS/SBC	1	26-Oct-2021 10:00:23.0	yes
02	(1) SBS-0335-052	ACS/SBC	2	26-Oct-2021 10:00:23.0	yes
03	(1) SBS-0335-052	ACS/SBC	2	26-Oct-2021 10:00:24.0	yes
63	(1) SBS-0335-052	ACS/SBC	1	26-Oct-2021 10:00:25.0	yes
05	(1) SBS-0335-052	ACS/WFC	2	26-Oct-2021 10:00:26.0	yes
11	(2) J104457	ACS/SBC	2	26-Oct-2021 10:00:27.0	yes
51	(2) J104457	ACS/SBC	1	26-Oct-2021 10:00:27.0	yes
12	(2) J104457	ACS/SBC	2	26-Oct-2021 10:00:28.0	yes
52	(2) J104457	ACS/SBC	1	26-Oct-2021 10:00:28.0	yes
15	(2) J104457	ACS/WFC	2	26-Oct-2021 10:00:29.0	yes
18	(2) J104457	WFC3/UVIS	3	26-Oct-2021 10:00:31.0	yes

21 Total Orbits Used

ABSTRACT

Nebular emission lines in the far ultraviolet are rapidly drawing attention as quantitative diagnostics of nebular gas. In the coming decades, they will be among the few information-carriers regarding the ionized ISM of faint galaxies at the highest redshifts. In particular, the C IV 1550 AA and He II 1640 AA lines are very prevalent in low-metallicity dwarf starbursts. However when using them to estimate the conditions in the ISM, C IV and He II diagnostics provide degenerate solutions between photo- and shock-ionization scenarios.

Here we propose to obtain emission line images of two nearby starburst galaxies with the strongest emission in He II recombination line and C IV 1550 AA doublet. This will be the first C IV emission imaging ever performed. The targets are well-known low-metallicity starbursts, and analogs of galaxy building blocks at the highest redshifts. We will measure the C IV and He II light profile, and compute the total C IV (large-aperture) luminosity for the first time. Most importantly we will map line ratios involving C IV, He II, and H-alpha at ~20 pc resolution, while state-of-the-art modeling will derive the ionizing output of the star clusters. Hence we will directly couple stellar parameters to nebular diagnostics on the requisite spatial scales. Our results will determine the impact of photoionization and shocks to UV line diagnostics, which will be pivotal for understanding the ISM conditions of the earliest galaxies.

OBSERVING DESCRIPTION

The goal of this project is to take images of two low-redshift starburst galaxies in various filters. These targets are:

1. SBS 0335 -052E
2. J104457

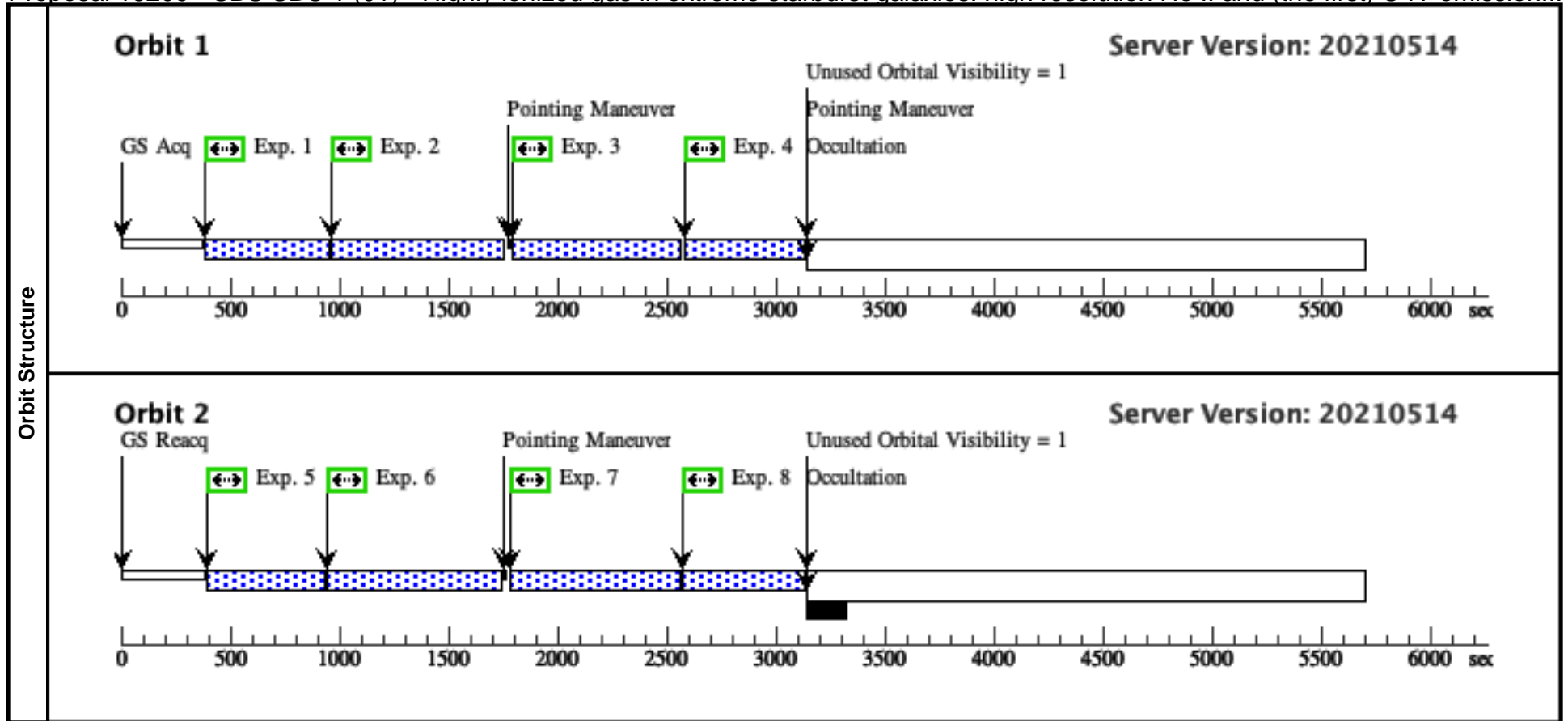
For both targets we will obtain images in the SBC/F150LP and F165LP filters in order to isolate the CIV emission line at 1550 AA. These are split between 6 orbits (3x 2 visits) for target 1, and 4 orbits (2x 2 visits) for target 2.

For both targets we will obtain a narrowband image of the He II 4686 line with the ACS/WFC/FR462N linear ramp filter. This is tuned to a wavelength of 4750 AA for target 1 and 4747 AA for target 2 because of slightly different redshifts. Two orbits are dedicated to this observation for each galaxy, and 3 exposures are obtained per orbit.

For target 2 we will also obtain WFC3/UVIS imaging in five filters: F336W, F438W, F606W, F814W, and F665N. We obtain three images in each filter, split over 3 orbits and dithering between orbits.

Throughout we have implemented our own sub-pixel dithering pattern using POS-TARGs.

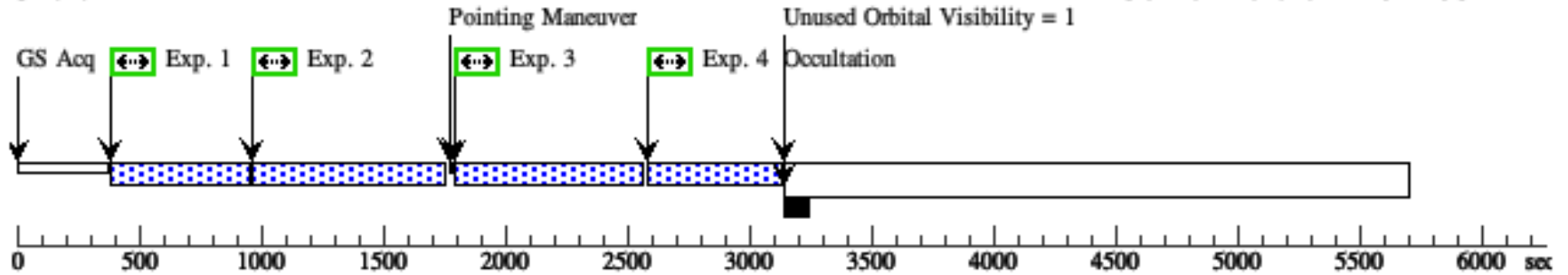
The number of post-flash electrons to add to the ACS ramp and UVIS imaging is calculated filter-by-filter using the imaging ETCs.



Visit	Proposal 16209, SBS SBC 1 (61), implementation Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Partial repeat of failed visit 01</i>									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	SBS-0335-052	RA: 03 37 44.0616 (54.4335900d) Dec: -05 02 40.20 (-5.04450d) Equinox: J2000		V=18.2	Reference Frame: NED				
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> Category=GALAXY Description=[STARBURST]										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 3.0072,3 .0702		500 Secs (500 Secs)	
									[==>]	[1]
	2	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 1		744 Secs (744 Secs)	
									[==>]	[1]
3	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 3.2088,- 2.99495		744 Secs (744 Secs)		
								[==>]	[1]	
4	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 3		500 Secs (500 Secs)		
								[==>]	[1]	

Orbit 1

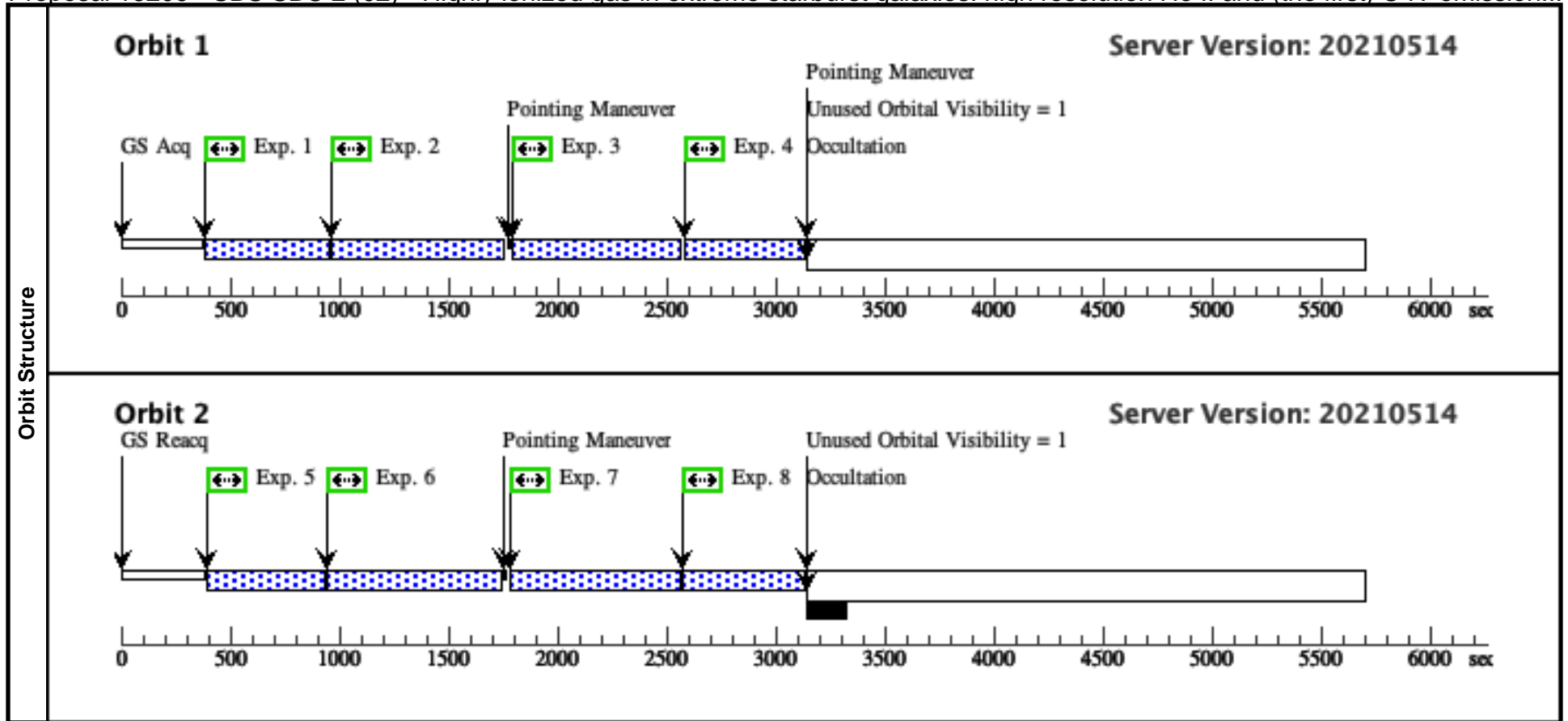
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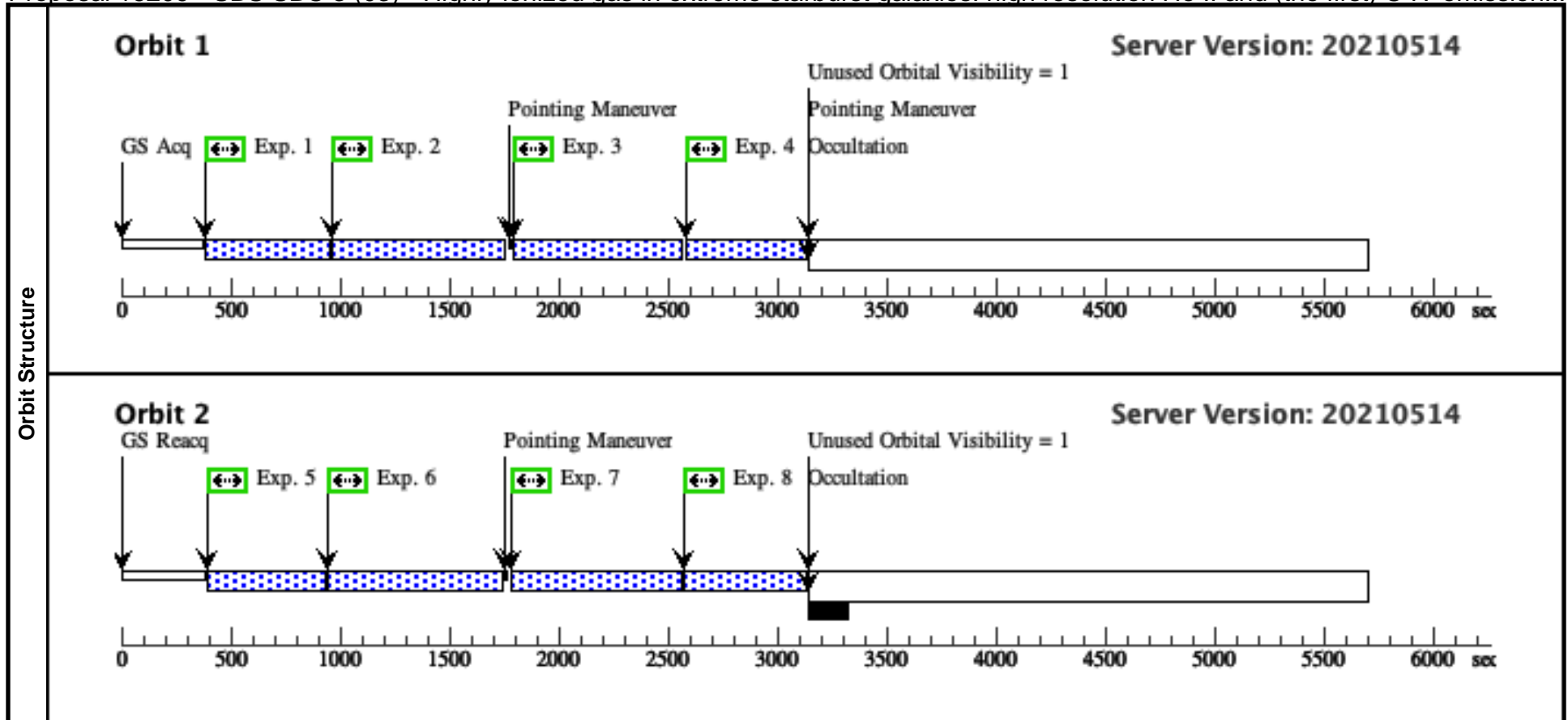


Proposal 16209 - SBS SBC 2 (02) - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emission...

Tue Oct 26 14:00:32 GMT 2021

Visit	Proposal 16209, SBS SBC 2 (02), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	SBS-0335-052	RA: 03 37 44.0616 (54.4335900d) Dec: -05 02 40.20 (-5.04450d) Equinox: J2000		V=18.2	Reference Frame: NED				
	<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> Category=GALAXY Description=[STARBURST]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG -3.024,-3.01		500 Secs (500 Secs)	
									[==>]	[1]
	2	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 1		744 Secs (744 Secs)	
									[==>]	[1]
	3	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG -2.9232,2.99495		744 Secs (744 Secs)	
									[==>]	[1]
	4	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 3		500 Secs (500 Secs)	
									[==>]	[1]
	5	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 3.0072,3.0702		510 Secs (510 Secs)	
								[==>]	[2]	
6	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		750 Secs (750 Secs)		
								[==>]	[2]	
7	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 3.2088,-2.99495		750 Secs (750 Secs)		
								[==>]	[2]	
8	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 7		510 Secs (510 Secs)		
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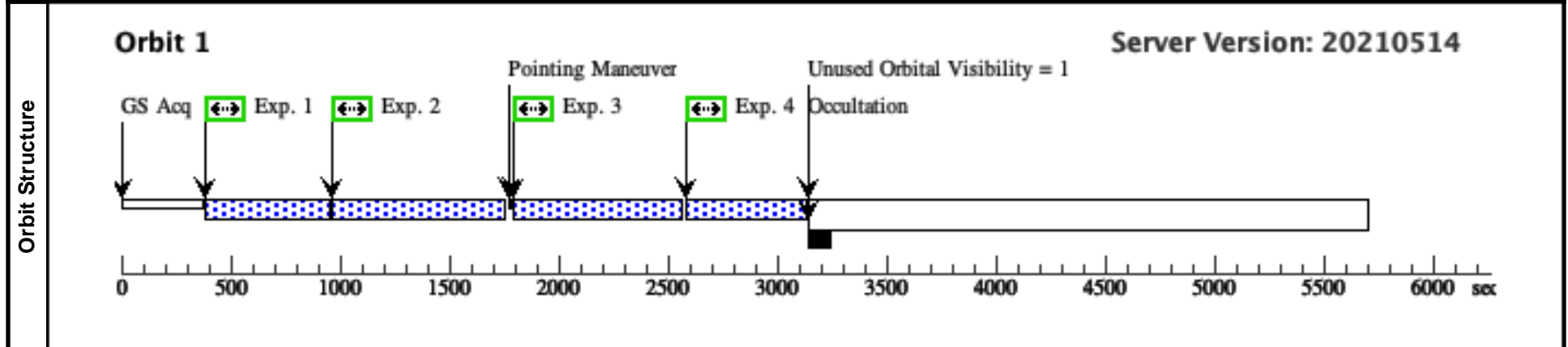




Visit	Proposal 16209, SBS SBC 3 (63), implementation				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: ACS/SBC				
	Special Requirements: (none)				
<i>Comments: Partial repeat of failed visit 63</i>					

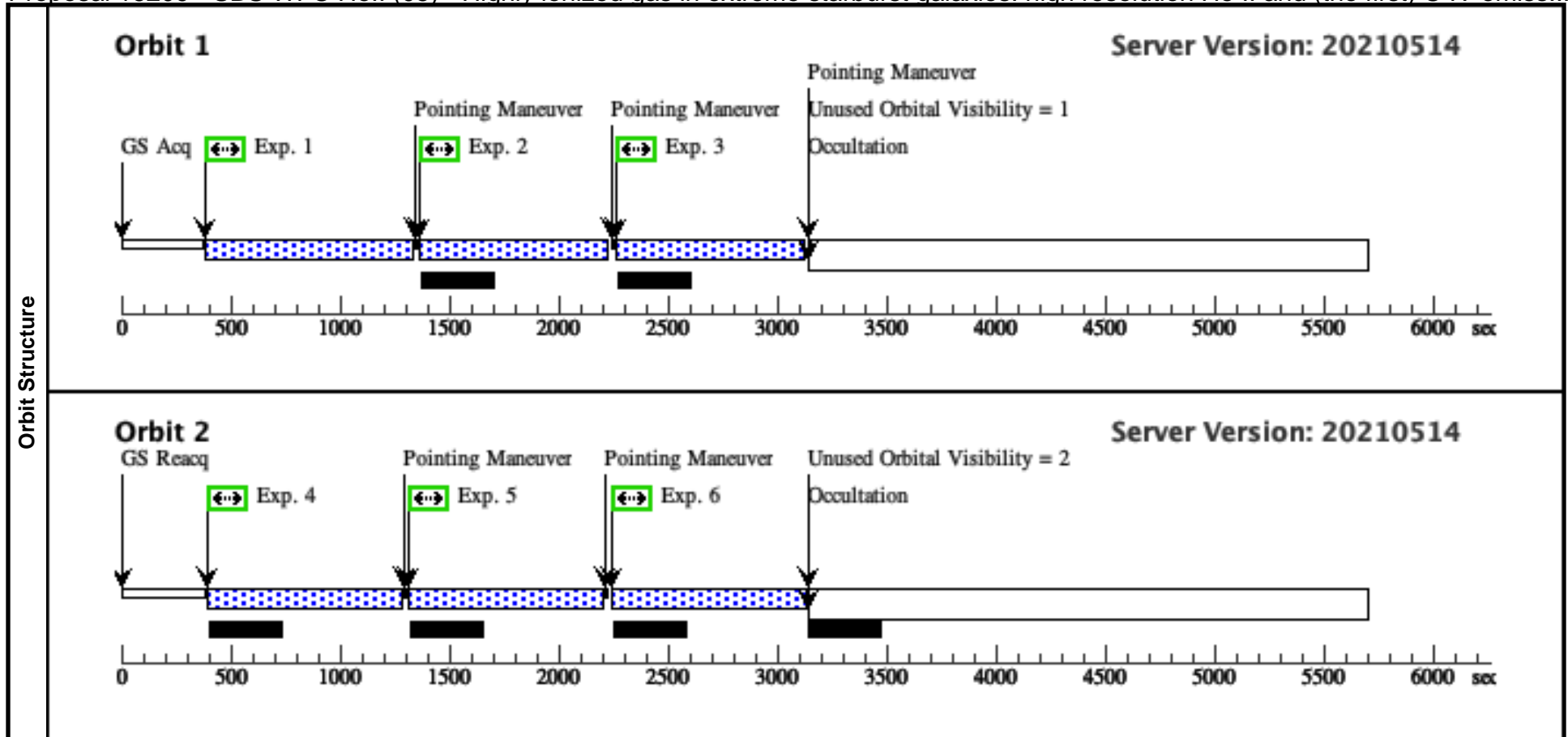
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	SBS-0335-052	RA: 03 37 44.0616 (54.4335900d) Dec: -05 02 40.20 (-5.04450d) Equinox: J2000		V=18.2	Reference Frame: NED
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>						
<i>Category=GALAXY</i>						
<i>Description=[STARBURST]</i>						

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 3.0072,3 .0702		500 Secs (500 Secs)	
									[==>]	[1]
	2	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 1		744 Secs (744 Secs)	
									[==>]	[1]
	3	(1452856)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 3.2088,- 2.99495		744 Secs (744 Secs)	
									[==>]	[1]
	4	(1452854)	(1) SBS-0335-052	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 3		500 Secs (500 Secs)	
									[==>]	[1]



Proposal 16209 - SBS WFC HeII (05) - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emiss...

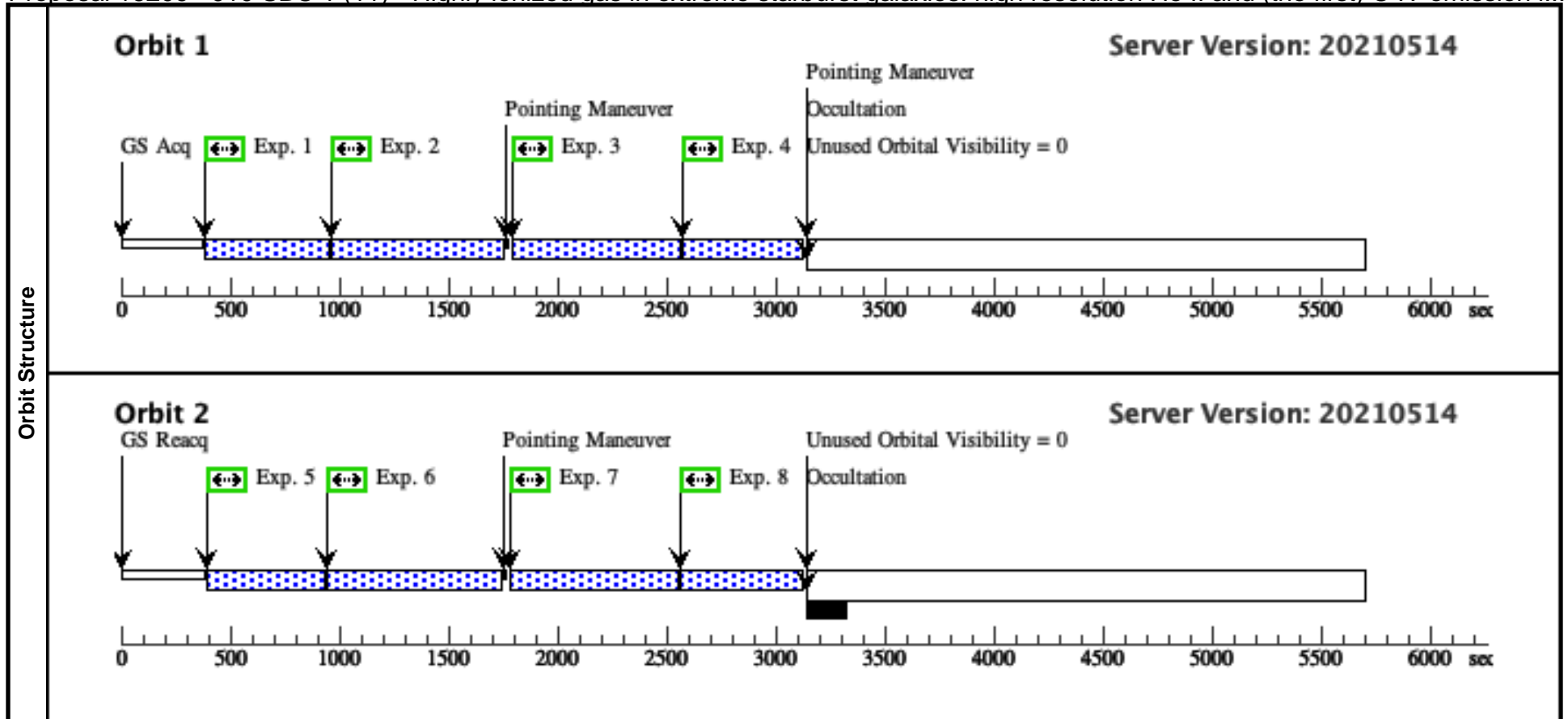
Visit	Proposal 16209, SBS WFC HeII (05), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)					Tue Oct 26 14:00:32 GMT 2021																																																																						
Diagnostics	(Exposure 1 (SBS WFC HeII (05))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (SBS WFC HeII (05))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (SBS WFC HeII (05))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 4 (SBS WFC HeII (05))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 5 (SBS WFC HeII (05))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 6 (SBS WFC HeII (05))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.																																																																											
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>SBS-0335-052</td> <td>RA: 03 37 44.0616 (54.4335900d) Dec: -05 02 40.20 (-5.04450d) Equinox: J2000</td> <td></td> <td>V=18.2</td> <td>Reference Frame: NED</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the NED database. Category=GALAXY Description=[STARBURST]</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	SBS-0335-052	RA: 03 37 44.0616 (54.4335900d) Dec: -05 02 40.20 (-5.04450d) Equinox: J2000		V=18.2	Reference Frame: NED																																																										
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Exposures	<table border="1"> <thead> <tr> <th>#</th> <th>Label</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1) SBS-0335-052</td> <td>(1) SBS-0335-052</td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG -1.0462 2,-1.0054</td> <td></td> <td>736 Secs (736 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>(1) SBS-0335-052</td> <td>(1) SBS-0335-052</td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 0.0,0.02 5135</td> <td></td> <td>736 Secs (736 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>(1) SBS-0335-052</td> <td>(1) SBS-0335-052</td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 1.02131, 0.95513</td> <td></td> <td>736 Secs (736 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>(1) SBS-0335-052</td> <td>(1) SBS-0335-052</td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 0.9964,1 .482965</td> <td></td> <td>760 Secs (760 Secs) [==>]</td> <td>[2]</td> </tr> <tr> <td>5</td> <td>(1) SBS-0335-052</td> <td>(1) SBS-0335-052</td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 0.02491, 0.477565</td> <td></td> <td>760 Secs (760 Secs) [==>]</td> <td>[2]</td> </tr> <tr> <td>6</td> <td>(1) SBS-0335-052</td> <td>(1) SBS-0335-052</td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG -1.0213 1,-0.5027</td> <td></td> <td>760 Secs (760 Secs) [==>]</td> <td>[2]</td> </tr> </tbody> </table>						#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG -1.0462 2,-1.0054		736 Secs (736 Secs) [==>]	[1]	2	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.0,0.02 5135		736 Secs (736 Secs) [==>]	[1]	3	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 1.02131, 0.95513		736 Secs (736 Secs) [==>]	[1]	4	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.9964,1 .482965		760 Secs (760 Secs) [==>]	[2]	5	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.02491, 0.477565		760 Secs (760 Secs) [==>]	[2]	6	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG -1.0213 1,-0.5027		760 Secs (760 Secs) [==>]	[2]
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																																			
1	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG -1.0462 2,-1.0054		736 Secs (736 Secs) [==>]	[1]																																																																			
2	(1) SBS-0335-052	(1) SBS-0335-052	ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.0,0.02 5135		736 Secs (736 Secs) [==>]	[1]																																																																			
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Proposal 16209 - J10 SBC 1 (11) - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emission i...

Tue Oct 26 14:00:32 GMT 2021

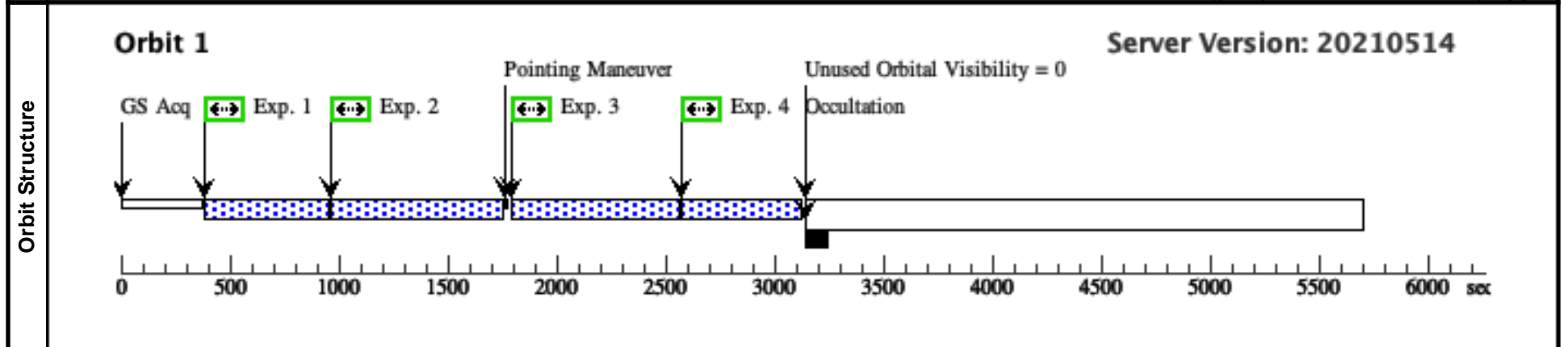
Visit	Proposal 16209, J10 SBC 1 (11), failed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
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	<i>Comments:</i> Category=GALAXY Description=[STARBURST]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG -3.024,-3.01		500 Secs (500 Secs)	
									[==>]	[1]
	2	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 1		743 Secs (743 Secs)	
									[==>]	[1]
	3	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG -2.9232,2.99495		743 Secs (743 Secs)	
									[==>]	[1]
	4	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 3		500 Secs (500 Secs)	
									[==>]	[1]
	5	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 3.0072,3.0702		510 Secs (510 Secs)	
								[==>]	[2]	
6	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		749 Secs (749 Secs)		
								[==>]	[2]	
7	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 3.2088,-2.99495		749 Secs (749 Secs)		
								[==>]	[2]	
8	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 7		510 Secs (510 Secs)		
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Visit	Proposal 16209, J10 SBC 1 (51), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: ACS/SBC				
	Special Requirements: (none)				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	J104457	RA: 10 44 57.7900 (161.2407917d) Dec: +03 53 13.15 (3.88699d) Equinox: J2000		V=17.5 FUV = 18.2 from GALEX	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[STARBURST]					

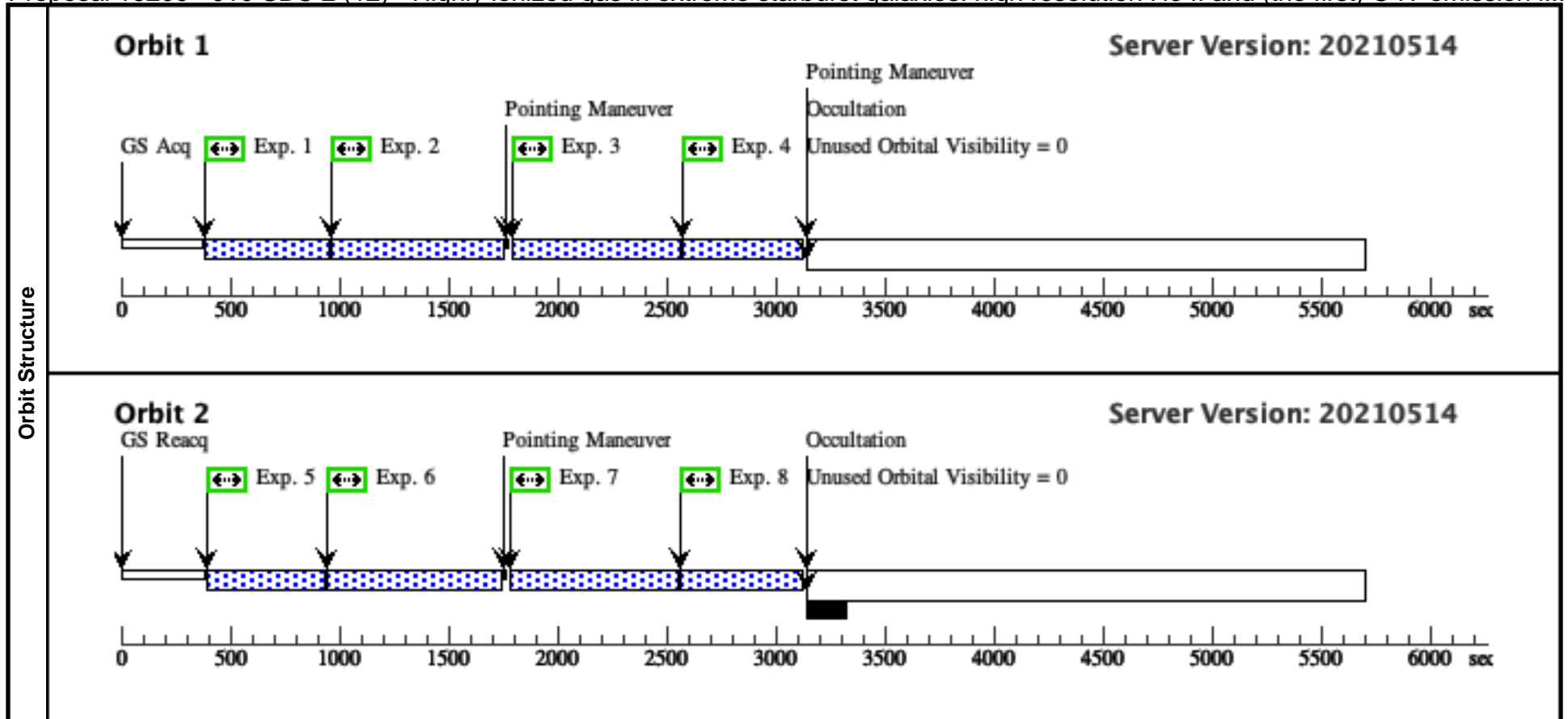
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 3.0072,3 .0702		500 Secs (500 Secs) [==>]	[1]
	2	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 1		743 Secs (743 Secs) [==>]	[1]
	3	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 3.2088,- 2.99495		743 Secs (743 Secs) [==>]	[1]
	4	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 3		500 Secs (500 Secs) [==>]	[1]



Proposal 16209 - J10 SBC 2 (12) - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emission i...

Tue Oct 26 14:00:32 GMT 2021

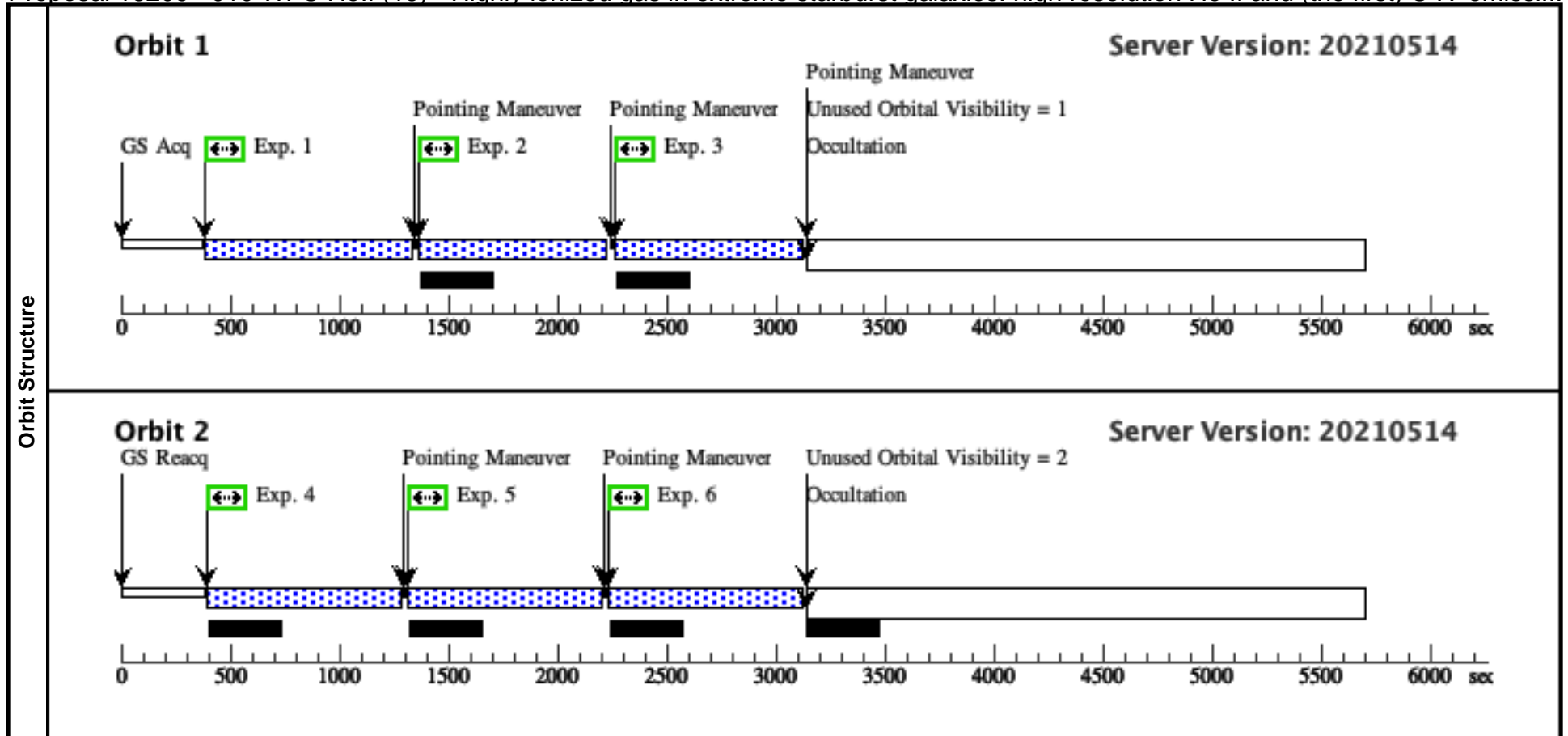
Visit	Proposal 16209, J10 SBC 2 (12), failed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(2)	J104457	RA: 10 44 57.7900 (161.2407917d) Dec: +03 53 13.15 (3.88699d) Equinox: J2000		V=17.5 FUV = 18.2 from GALEX	Reference Frame: ICRS			
	<i>Comments:</i> Category=GALAXY Description=[STARBURST]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG -3.024,-3.01		500 Secs (500 Secs)	
									[==>]	[1]
	2	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 1		743 Secs (743 Secs)	
									[==>]	[1]
	3	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG -2.9232,2.99495		743 Secs (743 Secs)	
									[==>]	[1]
	4	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 3		500 Secs (500 Secs)	
									[==>]	[1]
	5	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 3.0072,3.0702		510 Secs (510 Secs)	
								[==>]	[2]	
6	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		749 Secs (749 Secs)		
								[==>]	[2]	
7	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 3.2088,-2.99495		749 Secs (749 Secs)		
								[==>]	[2]	
8	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 7		510 Secs (510 Secs)		
								[==>]	[2]	



Visit	Proposal 16209, J10 SBC 2 (52), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Single-orbit repeat of failed visit 12</i>										
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
(2)		J104457	RA: 10 44 57.7900 (161.2407917d) Dec: +03 53 13.15 (3.88699d) Equinox: J2000		V=17.5 FUV = 18.2 from GALEX	Reference Frame: ICRS					
<i>Comments: Category=GALAXY Description=[STARBURST]</i>											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG -3.024,-3.01		500 Secs (500 Secs) [==>]	[1]	
	2	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 1		743 Secs (743 Secs) [==>]	[1]	
	3	(1452856)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG -2.9232, 2.99495		743 Secs (743 Secs) [==>]	[1]	
	4	(1452854)	(2) J104457	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 3		500 Secs (500 Secs) [==>]	[1]	
Orbit Structure	<p style="text-align: right;">Server Version: 20210514</p>										
	<p>Timeline labels: GS Acq, Exp. 1, Exp. 2, Pointing Maneuver, Exp. 3, Exp. 4, Occultation, Unused Orbital Visibility = 0</p>										

Proposal 16209 - J10 WFC HeII (15) - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emissi...

Visit	Proposal 16209, J10 WFC HeII (15), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none)					Tue Oct 26 14:00:33 GMT 2021																																																																	
Diagnostics	(Exposure 1 (J10 WFC HeII (15))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 2 (J10 WFC HeII (15))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 3 (J10 WFC HeII (15))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 4 (J10 WFC HeII (15))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 5 (J10 WFC HeII (15))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures. (Exposure 6 (J10 WFC HeII (15))) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp filters as central wavelengths & transmission efficiencies vary within the apertures.																																																																						
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>J104457</td> <td>RA: 10 44 57.7900 (161.2407917d) Dec: +03 53 13.15 (3.88699d) Equinox: J2000</td> <td></td> <td>V=17.5 FUV = 18.2 from GALEX</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments:</i> Category=GALAXY Description=[STARBURST]</p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	J104457	RA: 10 44 57.7900 (161.2407917d) Dec: +03 53 13.15 (3.88699d) Equinox: J2000		V=17.5 FUV = 18.2 from GALEX	Reference Frame: ICRS																																																										
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																																																																		
(2)	J104457	RA: 10 44 57.7900 (161.2407917d) Dec: +03 53 13.15 (3.88699d) Equinox: J2000		V=17.5 FUV = 18.2 from GALEX	Reference Frame: ICRS																																																																		
Exposures	<table border="1"> <thead> <tr> <th>#</th> <th>Label</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(2) J104457</td> <td></td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG -1.0462 2,-1.0054</td> <td></td> <td>735 Secs (735 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>(2) J104457</td> <td></td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 0.0,0.02 5135</td> <td></td> <td>735 Secs (735 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>(2) J104457</td> <td></td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 1.02131, 0.95513</td> <td></td> <td>735 Secs (735 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>(2) J104457</td> <td></td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 0.9964,1 .482965</td> <td></td> <td>759 Secs (759 Secs) [==>]</td> <td>[2]</td> </tr> <tr> <td>5</td> <td>(2) J104457</td> <td></td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG 0.02491, 0.477565</td> <td></td> <td>759 Secs (759 Secs) [==>]</td> <td>[2]</td> </tr> <tr> <td>6</td> <td>(2) J104457</td> <td></td> <td>ACS/WFC, ACCUM, WFC2-ORAMP</td> <td>FR462N 4750.38 A</td> <td>FLASH=8</td> <td>POS TARG -1.0213 1,-0.5027</td> <td></td> <td>759 Secs (759 Secs) [==>]</td> <td>[2]</td> </tr> </tbody> </table>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG -1.0462 2,-1.0054		735 Secs (735 Secs) [==>]	[1]	2	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.0,0.02 5135		735 Secs (735 Secs) [==>]	[1]	3	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 1.02131, 0.95513		735 Secs (735 Secs) [==>]	[1]	4	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.9964,1 .482965		759 Secs (759 Secs) [==>]	[2]	5	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.02491, 0.477565		759 Secs (759 Secs) [==>]	[2]	6	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG -1.0213 1,-0.5027		759 Secs (759 Secs) [==>]	[2]
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																														
1	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG -1.0462 2,-1.0054		735 Secs (735 Secs) [==>]	[1]																																																														
2	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.0,0.02 5135		735 Secs (735 Secs) [==>]	[1]																																																														
3	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 1.02131, 0.95513		735 Secs (735 Secs) [==>]	[1]																																																														
4	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.9964,1 .482965		759 Secs (759 Secs) [==>]	[2]																																																														
5	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG 0.02491, 0.477565		759 Secs (759 Secs) [==>]	[2]																																																														
6	(2) J104457		ACS/WFC, ACCUM, WFC2-ORAMP	FR462N 4750.38 A	FLASH=8	POS TARG -1.0213 1,-0.5027		759 Secs (759 Secs) [==>]	[2]																																																														

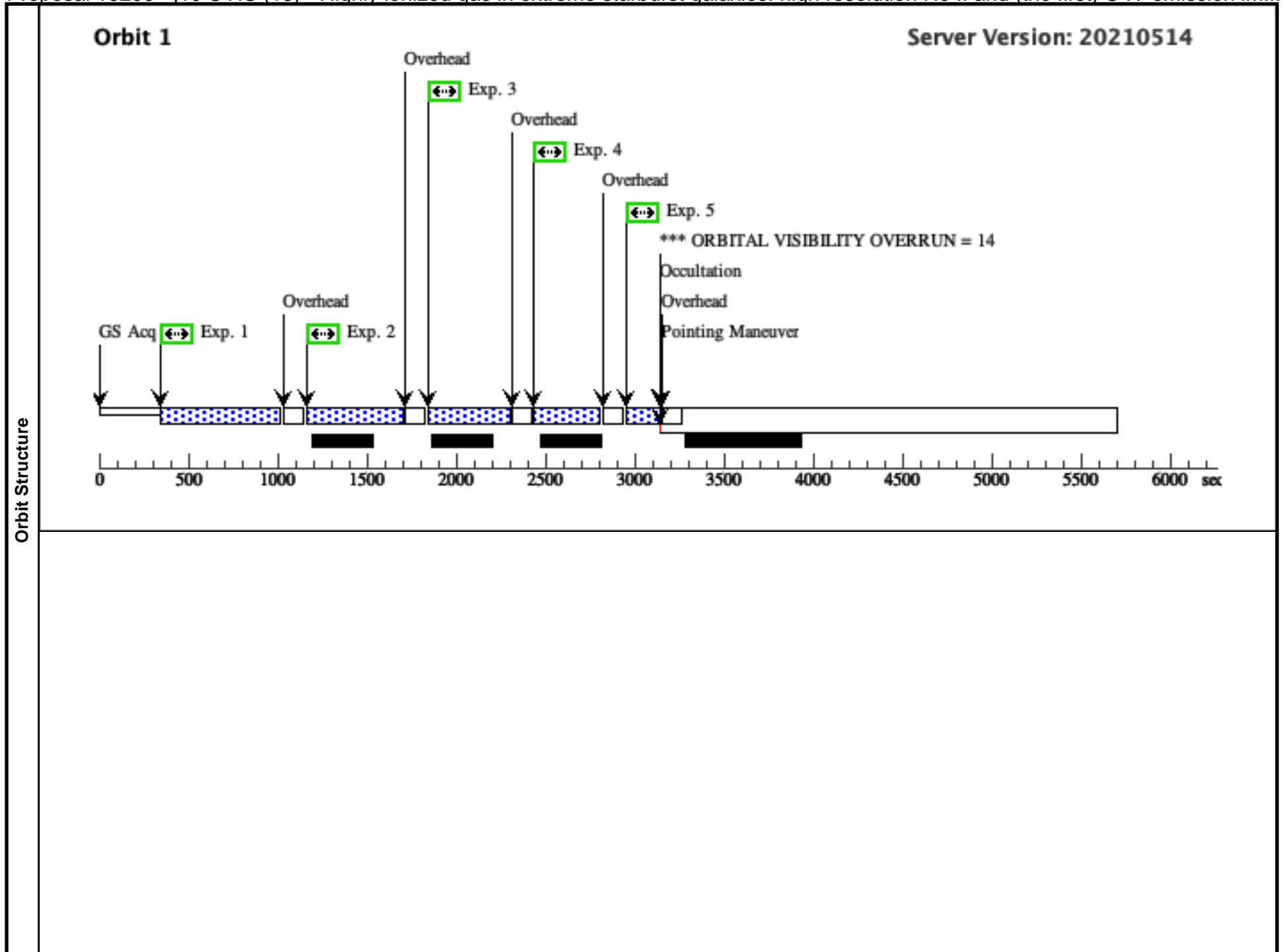


Proposal 16209 - j10 UVIS (18) - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emission im...

Visit	Proposal 16209, j10 UVIS (18), completed Tue Oct 26 14:00:33 GMT 2021 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)					
	Diagnostics	(j10 UVIS (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN				
(j10 UVIS (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN						
(j10 UVIS (18)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN						
(Exposure 3 (j10 UVIS (18))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser						
Fixed Targets	(Exposure 8 (j10 UVIS (18))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 13 (j10 UVIS (18))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	J104457	RA: 10 44 57.7900 (161.2407917d) Dec: +03 53 13.15 (3.88699d) Equinox: J2000		V=17.5 FUV = 18.2 from GALEX	Reference Frame: ICRS
Comments: Category=GALAXY Description=[STARBURST]						

Proposal 16209 - j10 UVIS (18) - Highly ionized gas in extreme starburst galaxies: high resolution He II and (the first) C IV emission im...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=17	GS ACQ SCENARI O BASE1B3		645 Secs (645 Secs)	
									[==>]	[1]
	2	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=18			515 Secs (515 Secs)	
									[==>]	[1]
	3	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6			445 Secs (445 Secs)	
									[==>]	[1]
	4	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=16			350 Secs (350 Secs)	
									[==>]	[1]
	5	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F606W	FLASH=10			170 Secs (170 Secs)	
									[==>]	[1]
	6	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=17	POS TARG 0.451,0. 403		645 Secs (645 Secs)	
									[==>]	[2]
	7	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=18	SAME POS AS 6		515 Secs (515 Secs)	
									[==>]	[2]
8	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	SAME POS AS 6		435 Secs (435 Secs)		
								[==>]	[2]	
9	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=16	SAME POS AS 6		350 Secs (350 Secs)		
								[==>]	[2]	
10	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F606W	FLASH=10	SAME POS AS 6		170 Secs (170 Secs)		
								[==>]	[2]	
11	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F665N	FLASH=17	POS TARG 0.902,0. 806		635 Secs (635 Secs)		
								[==>]	[3]	
12	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F336W	FLASH=18	SAME POS AS 11		515 Secs (515 Secs)		
								[==>]	[3]	
13	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F814W	FLASH=6	SAME POS AS 11		445 Secs (445 Secs)		
								[==>]	[3]	
14	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F438W	FLASH=16	SAME POS AS 11		350 Secs (350 Secs)		
								[==>]	[3]	
15	(2) J104457		WFC3/UVIS, ACCUM, UVIS2	F606W	FLASH=10	SAME POS AS 11		170 Secs (170 Secs)		
								[==>]	[3]	



Orbit 2

Server Version: 20210514

