



# 14127 - First Measurement of the Small Scale Structure of Circumgalactic Gas via Grism Spectra of Close Quasar Pairs

Cycle: 23, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
<b>Dr. Michele Fumagalli (PI) (ESA Member) (Contact)</b>	<b>Durham Univ.</b>	<b>michele.fumagalli@durham.ac.uk</b>
Prof. Joseph Hennawi (CoI) (ESA Member)	Max-Planck-Institut für Astronomie, Heidelberg	joe@mpia.de
Dr. John M. O'Meara (CoI) (AdminUSPI)	Saint Michaels College	jomeara@smcvt.edu
Dr. Jason X. Prochaska (CoI)	University of California - Santa Cruz	xavier@ucolick.org
Dr. Tom Theuns (CoI) (ESA Member)	Durham Univ.	tom.theuns@durham.ac.uk
Dr. Elisabeta Lusso (CoI) (ESA Member)	Max-Planck-Institut für Astronomie, Heidelberg	lusso@mpia.de
Dr. Kate Rubin (CoI)	Smithsonian Institution Astrophysical Observatory	khrrubin@gmail.com
Dr. Marc Rafelski (CoI)	Space Telescope Science Institute	marc.a.rafelski@nasa.gov
Mr. Matt Law (CoI) (ESA Member)	Durham Univ.	m.p.law@durham.ac.uk
Dr. Jonathan P. Gardner (CoI)	NASA Goddard Space Flight Center	jonathan.p.gardner@nasa.gov

## 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) 023233-211726	WFC3/UVIS	1	29-Jul-2016 13:06:50.0	yes
02	(2) 074653+440351	WFC3/UVIS	1	29-Jul-2016 13:06:51.0	yes
03	(3) 121646+352941	WFC3/UVIS	1	29-Jul-2016 13:06:51.0	yes

Proposal 14127 (STScI Edit Number: 6, Created: Friday, July 29, 2016 12:07:18 PM EST) - Overview

<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>
04	(4) 081329+101405	WFC3/UVIS	1	29-Jul-2016 13:06:52.0	yes
05	(5) 101723-204658	WFC3/UVIS	1	29-Jul-2016 13:06:52.0	yes
06	(6) 133904+374737	WFC3/UVIS	1	29-Jul-2016 13:06:53.0	yes
07	(7) 154815+284451	WFC3/UVIS	1	29-Jul-2016 13:06:53.0	yes
08	(8) 133907+131039	WFC3/UVIS	1	29-Jul-2016 13:06:54.0	yes
09	(9) 151538+151134	WFC3/UVIS	1	29-Jul-2016 13:06:54.0	yes
10	(10) 112455+571056	WFC3/UVIS	1	29-Jul-2016 13:06:55.0	yes
11	(11) 113947+414352	WFC3/UVIS	1	29-Jul-2016 13:06:55.0	yes
12	(12) 123635+522057	WFC3/UVIS	1	29-Jul-2016 13:06:56.0	yes
13	(13) 133831+001056	WFC3/UVIS	1	29-Jul-2016 13:06:56.0	yes
14	(14) 110430+290749	WFC3/UVIS	1	29-Jul-2016 13:06:57.0	yes
15	(15) 134544+262505	WFC3/UVIS	1	29-Jul-2016 13:06:57.0	yes
16	(16) 013458+243050	WFC3/UVIS	1	29-Jul-2016 13:06:58.0	yes
17	(17) 210329+064653	WFC3/UVIS	1	29-Jul-2016 13:06:58.0	yes
18	(18) 100233+353127	WFC3/UVIS	1	29-Jul-2016 13:06:59.0	yes
19	(19) 114504+285713	WFC3/UVIS	1	29-Jul-2016 13:06:59.0	yes
20	(20) 084624+271002	WFC3/UVIS	1	29-Jul-2016 13:07:00.0	yes
21	(21) 085230+350000	WFC3/UVIS	1	29-Jul-2016 13:07:00.0	yes
22	(22) 002424-012825	WFC3/UVIS	1	29-Jul-2016 13:07:01.0	yes
23	(23) 073522+295710	WFC3/UVIS	1	29-Jul-2016 13:07:01.0	yes
24	(24) 143104+270524	WFC3/UVIS	1	29-Jul-2016 13:07:02.0	yes
25	(25) 224856+030700	WFC3/UVIS	1	29-Jul-2016 13:07:02.0	yes
26	(26) 122545+564440	WFC3/UVIS	1	29-Jul-2016 13:07:03.0	yes
27	(27) 092056+131057	WFC3/UVIS	1	29-Jul-2016 13:07:03.0	yes
28	(28) 034407+101520	WFC3/UVIS	1	29-Jul-2016 13:07:04.0	yes

Proposal 14127 (STScI Edit Number: 6, Created: Friday, July 29, 2016 12:07:18 PM EST) - Overview

<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>
29	(29) 140953+391953	WFC3/UVIS	1	29-Jul-2016 13:07:04.0	yes
30	(30) 144254+405535	WFC3/UVIS	1	29-Jul-2016 13:07:05.0	yes
31	(31) 105644-005933	WFC3/UVIS	1	29-Jul-2016 13:07:05.0	yes
32	(32) 133146+033545	WFC3/UVIS	1	29-Jul-2016 13:07:05.0	yes
33	(33) 133209+252301	WFC3/UVIS	1	29-Jul-2016 13:07:06.0	yes
34	(34) 224204+055830	WFC3/UVIS	1	29-Jul-2016 13:07:06.0	yes
35	(35) 115031+045353	WFC3/UVIS	1	29-Jul-2016 13:07:07.0	yes
36	(36) 234819+005721	WFC3/UVIS	1	29-Jul-2016 13:07:07.0	yes
37	(37) 224136+230909	WFC3/UVIS	1	29-Jul-2016 13:07:08.0	yes
38	(38) 172855+263449	WFC3/UVIS	1	29-Jul-2016 13:07:08.0	yes
39	(39) 224325-061351	WFC3/UVIS	1	29-Jul-2016 13:07:09.0	yes
40	(40) 133222+471712	WFC3/UVIS	1	29-Jul-2016 13:07:09.0	yes
41	(41) 161302+080814	WFC3/UVIS	1	29-Jul-2016 13:07:10.0	yes
42	(42) 142149+163027	WFC3/UVIS	1	29-Jul-2016 13:07:10.0	yes
43	(43) 101652+222412	WFC3/UVIS	1	29-Jul-2016 13:07:11.0	yes
44	(44) 163700+263609	WFC3/UVIS	1	29-Jul-2016 13:07:11.0	yes
45	(45) 011707+315341	WFC3/UVIS	1	29-Jul-2016 13:07:11.0	yes
46	(46) 103425+330635	WFC3/UVIS	1	29-Jul-2016 13:07:12.0	yes
47	(47) 144320+200825	WFC3/UVIS	1	29-Jul-2016 13:07:12.0	yes
48	(48) 093747+150928	WFC3/UVIS	1	29-Jul-2016 13:07:13.0	yes
49	(49) 221427+132657	WFC3/UVIS	1	29-Jul-2016 13:07:13.0	yes
50	(50) 125421+610421	WFC3/UVIS	1	29-Jul-2016 13:07:14.0	yes
51	(51) 154938+313646	WFC3/UVIS	1	29-Jul-2016 13:07:14.0	yes
52	(52) 111641+650717	WFC3/UVIS	1	29-Jul-2016 13:07:15.0	yes
53	(53) 140052+123248	WFC3/UVIS	1	29-Jul-2016 13:07:15.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
54	(54) 171946+254941	WFC3/UVIS	1	29-Jul-2016 13:07:16.0	yes
55	(55) 104533+404121	WFC3/UVIS	1	29-Jul-2016 13:07:16.0	yes

55 Total Orbits Used

## ABSTRACT

In our current structure formation paradigm, the supply of cool gas in the circumgalactic medium (CGM) provides the primary fuel for galaxy formation. Hydrodynamic simulations predict that the cool CGM will self-shield, and hence be easily detectable in absorption as optically-thick Lyman limit systems (LLSs). Several decades of absorption line spectroscopy have established the abundance and properties of these LLSs, however their relationship to populations of galaxies and to our theoretical picture of structure formation remains a mystery. We propose to solve these puzzles with WFC3/G280 grism spectra of 55 quasar pairs at small separation, to simultaneously pierce LLSs with two sightlines at small impact parameters (10-500 kpc). This novel experiment will resolve the small-scale structure of optically thick gas in the CGM, and provide the first measurement of the two-point correlation function of LLS pairs. This new observable will place LLSs in the clustering hierarchy to finally determine their relationship to observed populations of distant galaxies. These efforts are complemented by existing ancillary ground-based spectroscopy, which reveals the kinematics of related metal-line absorption, providing unprecedented constraints on the infalling and outflowing gas kinematics around galaxies hosting LLSs. Our experiment will also provide new insights into the small-scale variations of metal enrichment in the halos of distant galaxies. Direct comparison to our state-of-the-art hydrodynamic simulations will provide a new quantitative test of the current galaxy formation picture, including galactic outflows and the existence of cold accretion.

## OBSERVING DESCRIPTION

This program will utilize the low-resolution grism spectroscopic mode of WFC3/UVIS on HST to obtain spectra of 55 close separation pairs of quasars at  $z \sim 2-3$ . These spectra aim to reveal the small-scale structure of the circumgalactic medium (CGM) by measuring strong hydrogen absorption (Lyman limit systems, or LLS). The program will determine the presence of LLS by their characteristic strong absorption break feature in the spectra. Additionally, the program will produce a variety of stacked spectra to provide a new measurement of the spectral energy distribution of quasars between  $z \sim 2-3$ . The program will also perform a survey of galaxies in the extended fields around the quasar pairs that the WFC3 data provides simultaneously with the quasar spectra.

For each target, we aim to acquire spectra for two quasars in the field, which are separated by angular separations between 1-20". Our observing

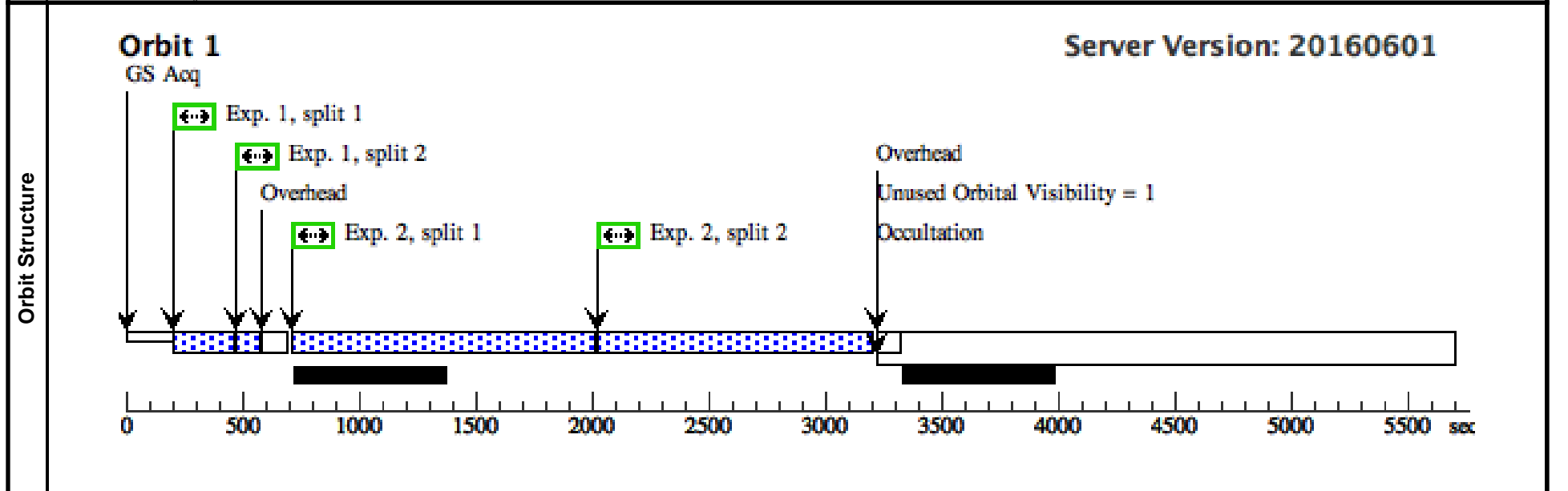
## Proposal 14127 (STScI Edit Number: 6, Created: Friday, July 29, 2016 12:07:18 PM EST) - Overview

strategy aims to observe each pair in a single visit. For each visit, one of the two members of the pair (generally the fainter one) will be positioned at the center of chip #2 by means of y-offset. The telescope roll angle will be constrained to lie within  $\pm 5$  deg of the pair position angle, so that both quasars lie along the y-axis (orthogonal to the dispersion axis). Occasionally, however, the presence of other UV-bright sources aligned with the pair will require additional changes in the telescope roll angle (or y-offsets), to remove these sources from chip #2 or to avoid overlap of traces. Each visit will start with a direct image in the F300X filter, using the G280-REF aperture. The exposure time of 120s (240s for the faintest targets) is sufficient to image the targeted quasars with high SN ( $>20$ ), avoiding at the same time saturation of the brightest sources. For the direct image, a postflash of 12e will be applied. Next, we will acquire 2 exposures (with CR-SPLIT = 2) with the G280 grism in the UVIS aperture. These two exposures will be of approximately 1200s each, with the exact length chosen to maximise the exposure time in one orbit.

<b>Visit</b>	Proposal 14127, 023233-211726 (01), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 19D TO 19 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	023233-211726	RA: 02 32 33.1000 (38.1379167d)		V=19.58+/-0.01	Reference Frame: ICRS
		Alt Name1: HE0230-2130	Dec: -21 17 26.00 (-21.29056d)			
			Equinox: J2000			
	<i>Comments: Lense: second image V = 19.80</i>					

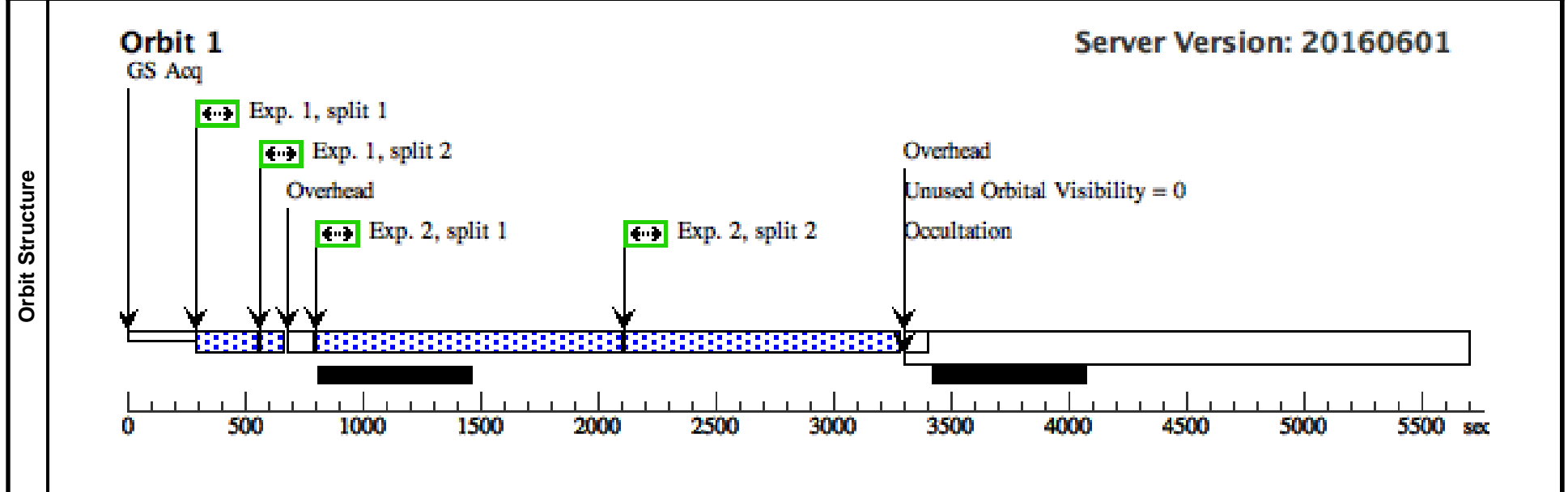
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	023233-211 726_img (WFC3UVI S.im.718727)	(1) 023233-211726	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O SINGLE		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	023233-211 726_dis (WFC3UVI S.sp.718773)	(1) 023233-211726	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2340 Secs (2360 Secs) [=>1180.0 Secs (Split 1)] [=>1180.0 Secs (Split 2)]	[1]
	<i>Comments: Lock PA for lense</i>									



<b>Visit</b>	Proposal 14127, 074653+440351 (02), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 251D TO 251 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	074653+440351	RA: 07 46 53.0400 (116.7210000d)		V=19.87+/-0.01	Reference Frame: ICRS
		Alt Name1: SDSSJ074653.03+440351.3	Dec: +44 03 51.30 (44.06425d)	Equinox: J2000		
	<i>Comments: Lense: second image V = 19.97</i>					

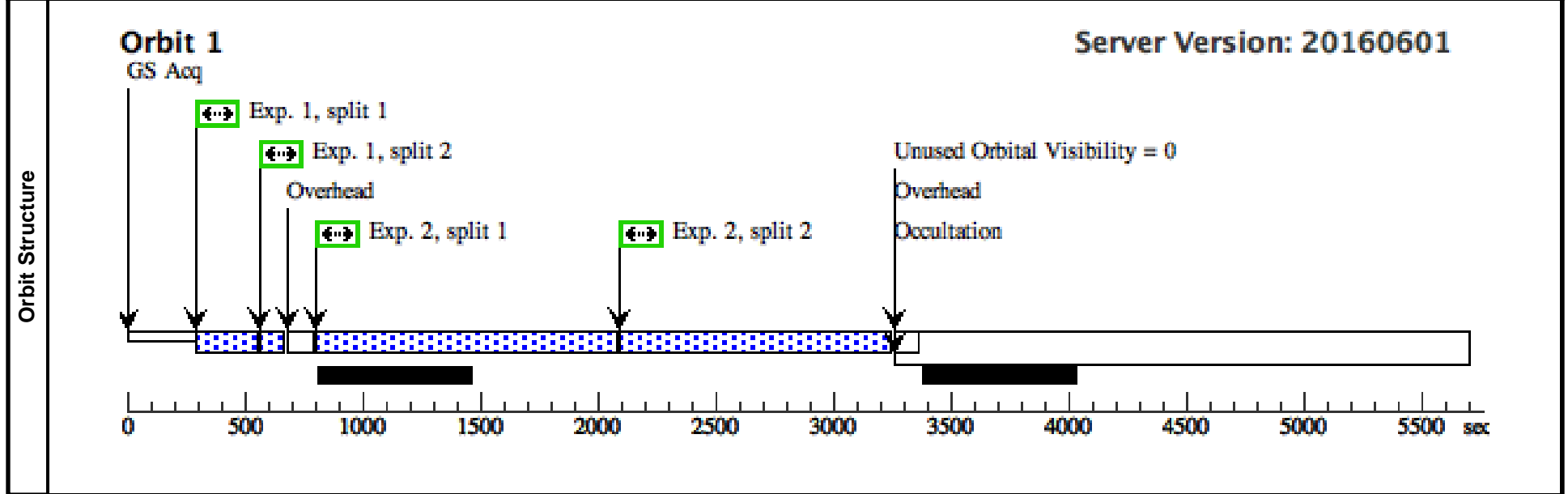
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	074653+440351_img (WFC3UVIS.im.718728)	(2) 074653+440351	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	074653+440351_dis (718774)	(2) 074653+440351	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2354 Secs) [=>1177.0 Secs (Split 1)] [=>1177.0 Secs (Split 2)]	[1]
	<i>Comments: Lock PA for lense</i>									



<b>Visit</b>	Proposal 14127, 121646+352941 (03), completed					Fri Jul 29 17:07:18 GMT 2016
	Diagnostic Status: No Diagnostics					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 217D TO 225 D					

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	121646+352941	RA: 12 16 46.0400 (184.1918333d) Dec: +35 29 41.40 (35.49483d) Equinox: J2000		V=18.97+/-0.01	Reference Frame: ICRS
<i>Comments: Lense: second image V = 19.95</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	121646+352 941_img (WFC3UVI S.im.718728 )	(3) 121646+352941	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	121646+352 941_dis (718774)	(3) 121646+352941	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2314 Secs) [=>1157.0 Secs (Split 1)] [=>1157.0 Secs (Split 2)]	[1]
	<i>Comments: MR: PA change - to improve parallel lines? From 213-223 to 217-225</i>									

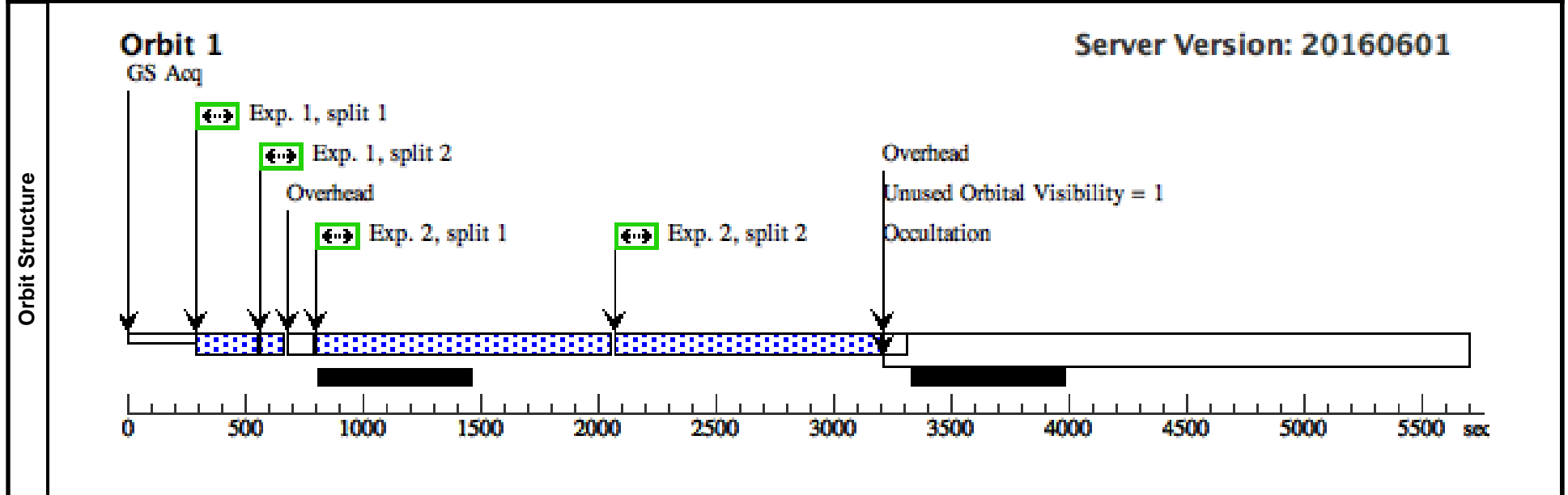


<b>Visit</b>	Proposal 14127, 081329+101405 (04), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 295D TO 300 D; ORIENT 115D TO 120 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(4)	081329+101405	RA: 08 13 29.7080 (123.3737833d) Dec: +10 14 11.62 (10.23656d) Equinox: J2000		V=20.09+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.40 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	081329+101405_img (718728)	(4) 081329+101405	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	081329+101405_dis (718774)	(4) 081329+101405	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2264 Secs) [=>1132.0 Secs (Split 1)] [=>1132.0 Secs (Split 2)]	[1]

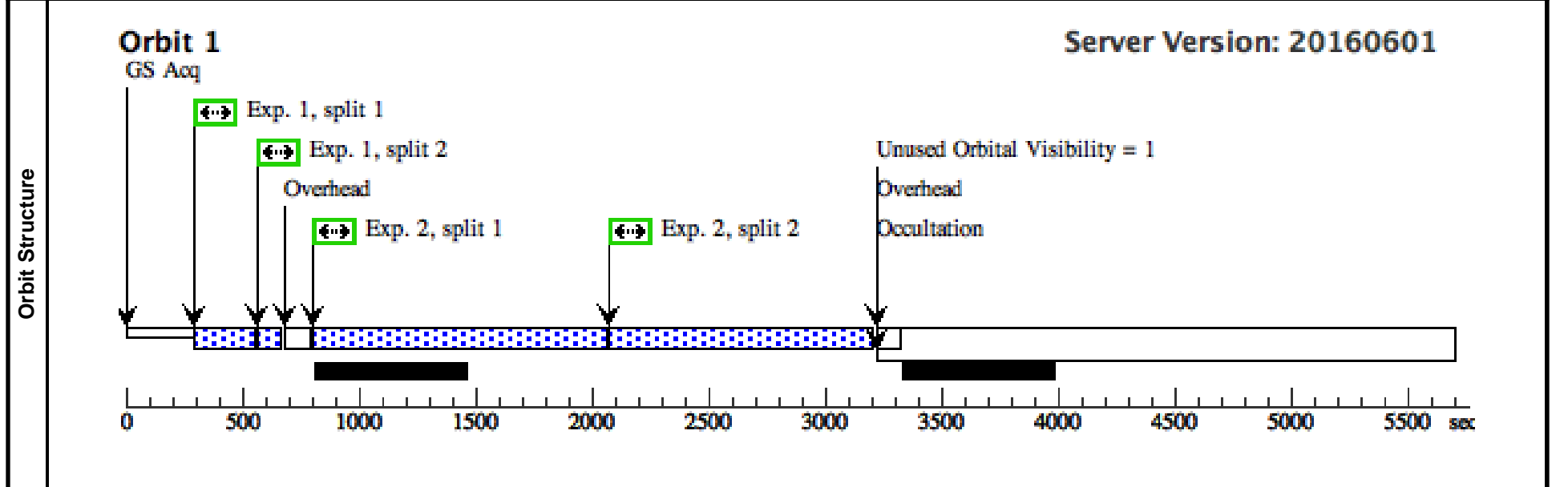
*Comments: Observed at inclined angle to avoid overlap with nearby sources*



<b>Visit</b>	Proposal 14127, 101723-204658 (05), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 43D TO 43 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	101723-204658	RA: 10 17 23.8400 (154.3493333d)		V=17.43+/-0.01	Reference Frame: ICRS
		Alt Name1: Q1017-207	Dec: -20 46 58.40 (-20.78289d)			
			Equinox: J2000			
	<i>Comments: Lense: second image V = 19.58</i>					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	101723-204 658_img (WFC3UVI S.im.718741 )	(5) 101723-204658	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	101723-204 658_dis (718787)	(5) 101723-204658	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2400 Secs (2268 Secs) [=>1134.0 Secs (Split 1)] [=>1134.0 Secs (Split 2)]	[1]
	<i>Comments: Lock PA for lense. Possible G star in the way [one beam safe].</i>									

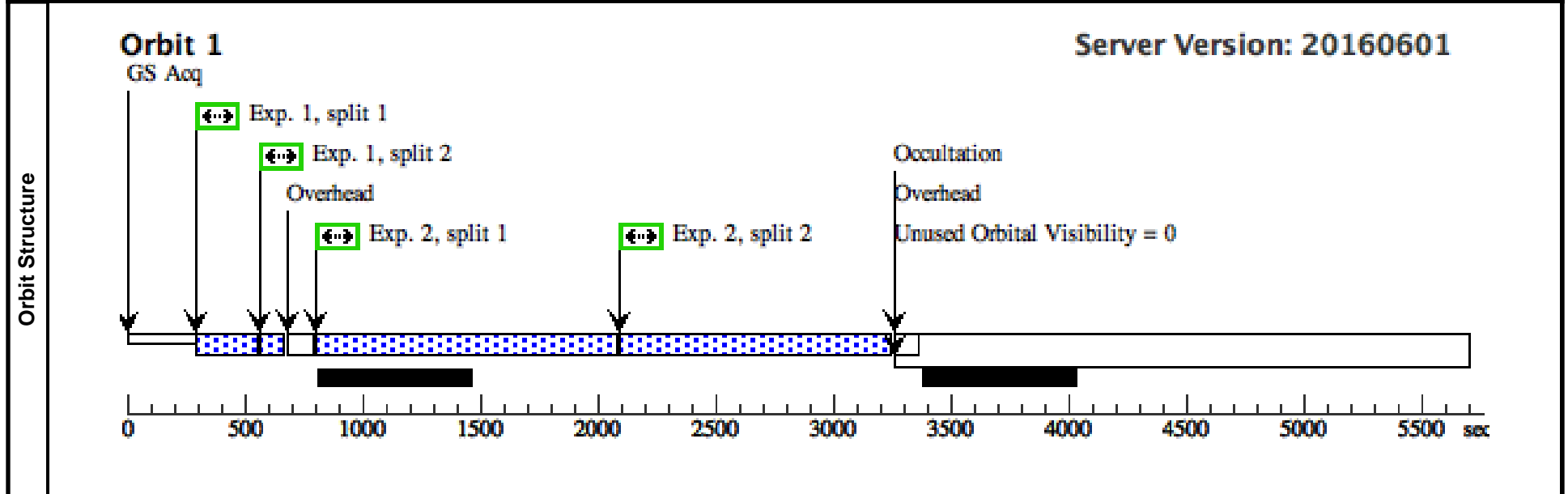


<b>Visit</b>	Proposal 14127, 133904+374737 (06), scheduled				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 95D TO 105 D; ORIENT 275D TO 285 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	133904+374737	RA: 13 39 4.4660 (204.7686083d) Dec: +37 47 37.73 (37.79381d) Equinox: J2000		V=21.00+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.94 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	133904+374 737_img (718750)	(6) 133904+374737	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	133904+374 737_dis (718783)	(6) 133904+374737	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2400 Secs (2314 Secs) [=>1157.0 Secs (Split 1)] [=>1157.0 Secs (Split 2)]	[1]

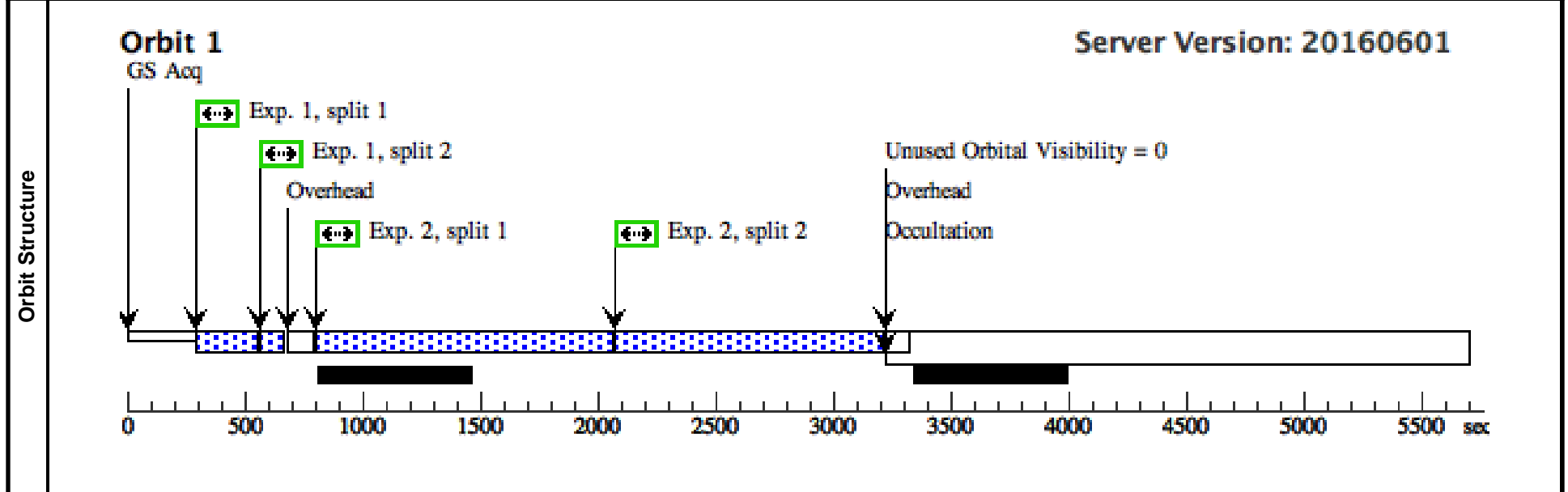
*Comments: MR: PA change to avoid star u=21.55, g=1.60 from 83-93 and 263-273 to 95-105 and 275-285*



<b>Visit</b>	Proposal 14127, 154815+284451 (07), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 162D TO 162 D; ORIENT 342D TO 342 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(7)	154815+284451	RA: 15 48 15.3500 (237.0639583d) Dec: +28 44 51.33 (28.74759d) Equinox: J2000		V=20.56+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.50</i>						

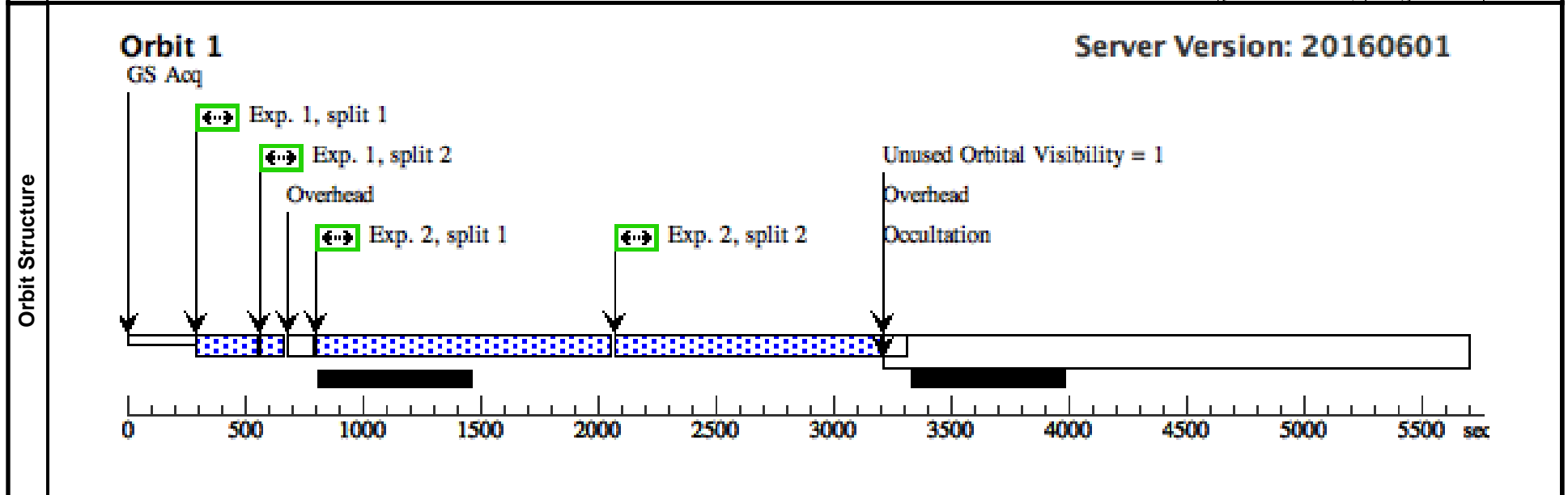
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	154815+284 451_img (718737)	(7) 154815+284451	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)		
										[==>(Split 1)]	[1]
										[==>(Split 2)]	
2	154815+284 451_dis (718782)	(7) 154815+284451	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2400 Secs (2276 Secs)		
									[==>1138.0 Secs (Split 1)]	[1]	
									[==>1138.0 Secs (Split 2)]		
<i>Comments: Object aligned is G5 star, which should not contribute to UV emission (WFC3UVIS.sp.718799) To be safe, add small tilt from PA.</i>											



<b>Visit</b>	Proposal 14127, 133907+131039 (08), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 71D TO 81 D; ORIENT 251D TO 261 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(8)	133907+131039	RA: 13 39 7.2350 (204.7801458d) Dec: +13 10 38.68 (13.17741d) Equinox: J2000		V=19.14+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 18.72</i>						

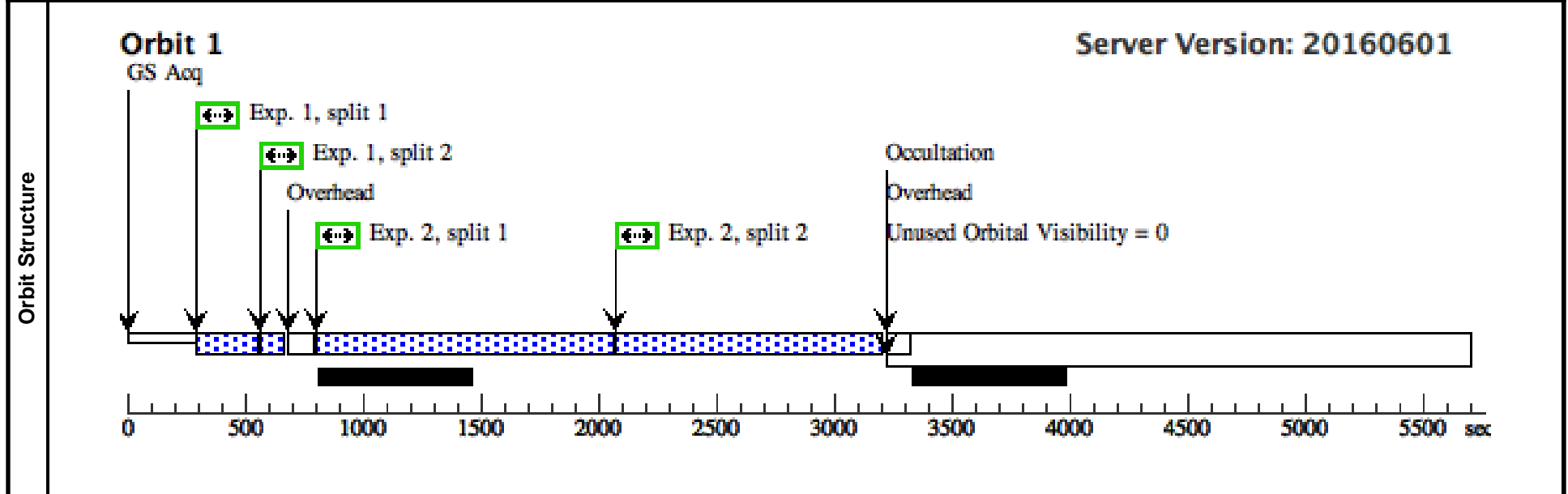
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	133907+131039_img (718734)	(8) 133907+131039	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)		
										[=>(Split 1)]	[1]
										[=>(Split 2)]	
2	133907+131039_dis (718779)	(8) 133907+131039	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2400 Secs (2264 Secs)		
									[=>1132.0 Secs (Split 1)]	[1]	
									[=>1132.0 Secs (Split 2)]		



<b>Visit</b>	Proposal 14127, 151538+151134 (09), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 183D TO 193 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(9)	151538+151134	RA: 15 15 38.4770 (228.9103208d) Dec: +15 11 34.84 (15.19301d) Equinox: J2000		V=18.6+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 18.23</i>						

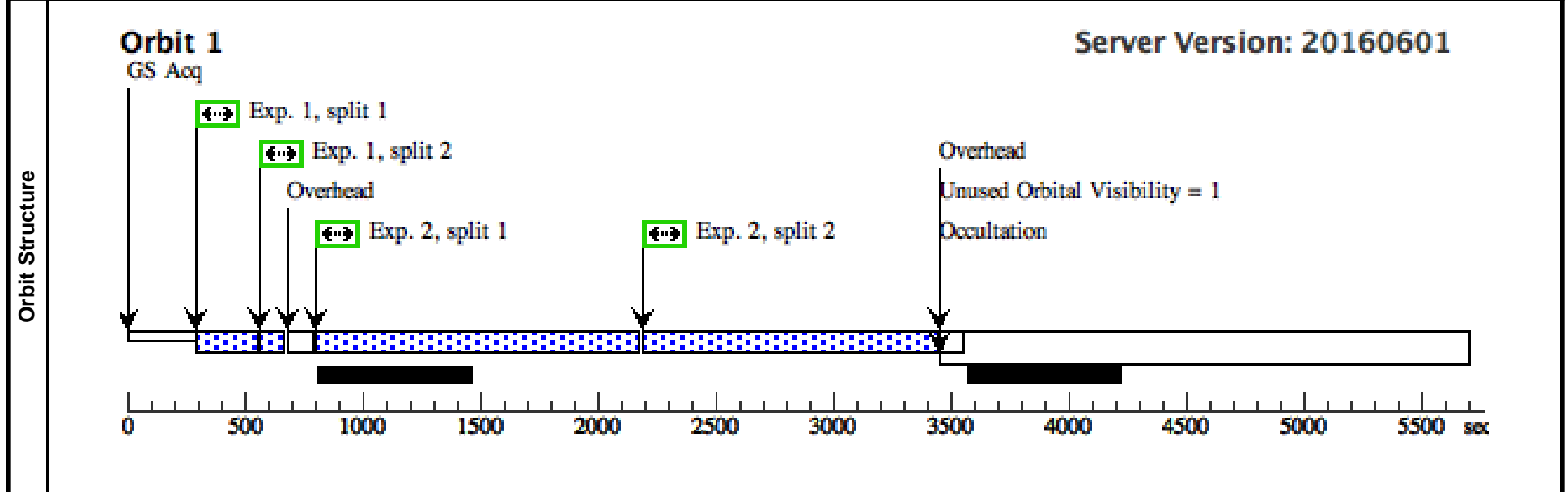
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	151538+151134_img (718725)	(9) 151538+151134	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	151538+151134_dis (718771)	(9) 151538+151134	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2268 Secs)	
								[==>1134.0 Secs (Split 1)] [==>1134.0 Secs (Split 2)]	[1]	
<i>Comments: Object in SE with potential overlap - but more than 1/4 CCD so should be ok. MR: Plaved with packing to maximize exposure time and still get visibility</i>										



<b>Visit</b>	Proposal 14127, 112455+571056 (10), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 357D TO 357 D; ORIENT 177D TO 177 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(10)	112455+571056	RA: 11 24 55.4400 (171.2310000d) Dec: +57 10 58.50 (57.18292d) Equinox: J2000		V=19.65+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 18.68</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	112455+571056_img (718735)	(10) 112455+571056	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
										[=>(Split 1)]
										[=>(Split 2)]
2	112455+571056_dis (718780)	(10) 112455+571056	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2700 Secs (2502 Secs)	
									[=>1251.0 Secs (Split 1)]	
									[=>1251.0 Secs (Split 2)]	[1]
<i>Comments: Close separation - lock PA Bright star off chip 2</i>										

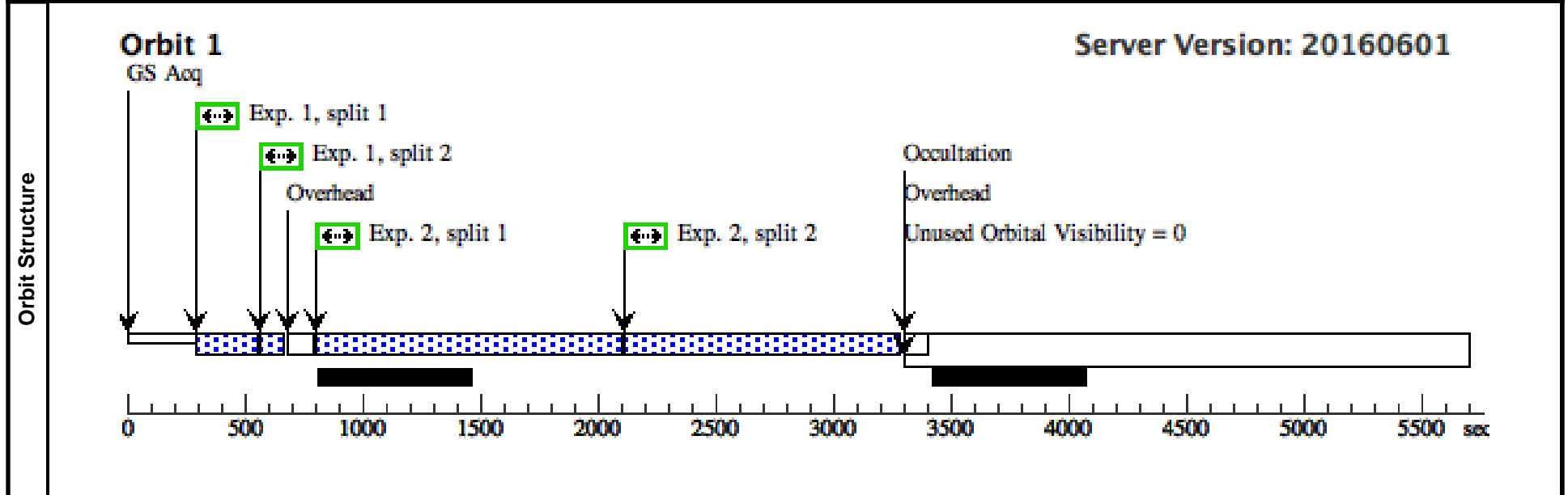


<b>Visit</b>	Proposal 14127, 113947+414352 (11), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 192D TO 192 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(11)	113947+414352	RA: 11 39 47.0630 (174.9460958d) Dec: +41 43 51.15 (41.73088d) Equinox: J2000		V=20.22+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.99</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	113947+414 352_img (718736)	(11) 113947+414352	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
	[==>(Split 1)] [==>(Split 2)]									[1]
2	113947+414 352_dis (718781)	(11) 113947+414352	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2354 Secs)		
[==>1177.0 Secs (Split 1)] [==>1177.0 Secs (Split 2)]									[1]	

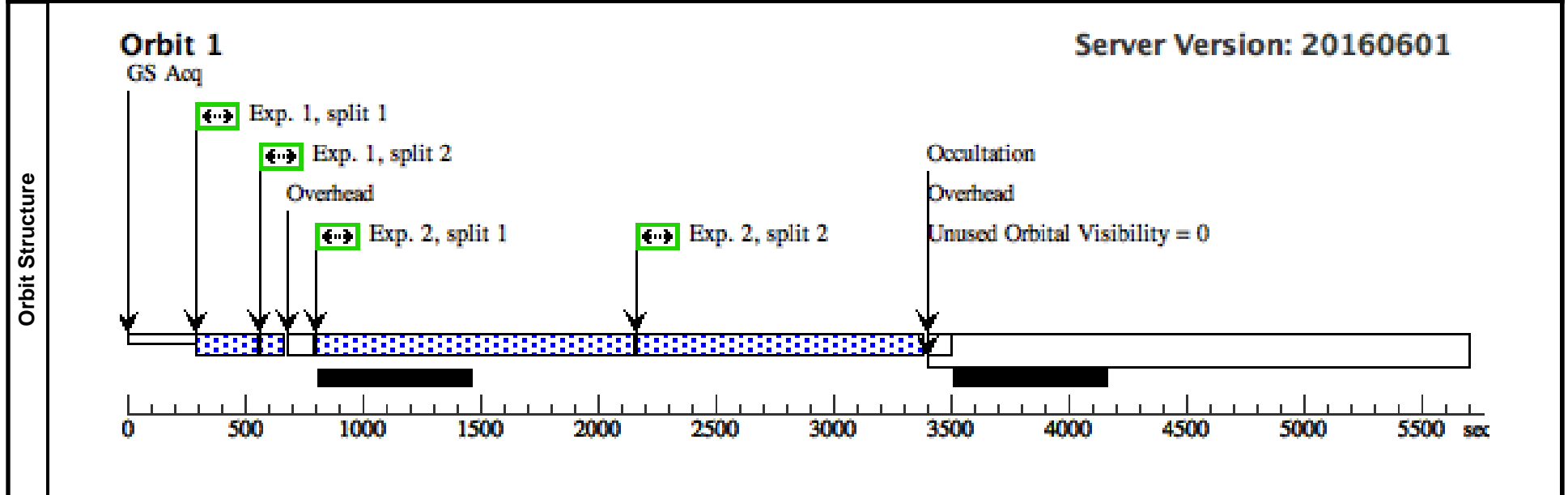
*Comments: Bright G star nearby - should be ok with current angle (5 deg tilt from PA).*



<b>Visit</b>	Proposal 14127, 123635+522057 (12), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 71D TO 81 D; ORIENT 250D TO 260 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(12)	123635+522057	RA: 12 36 35.1450 (189.1464375d) Dec: +52 20 59.08 (52.34974d) Equinox: J2000		V=20.5+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.62</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	123635+522 057_img (718755)	(12) 123635+522057	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	123635+522 057_dis (718789)	(12) 123635+522057	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2450 Secs)	
								[==>1225.0 Secs (Split 1)] [==>1225.0 Secs (Split 2)]	[1]	

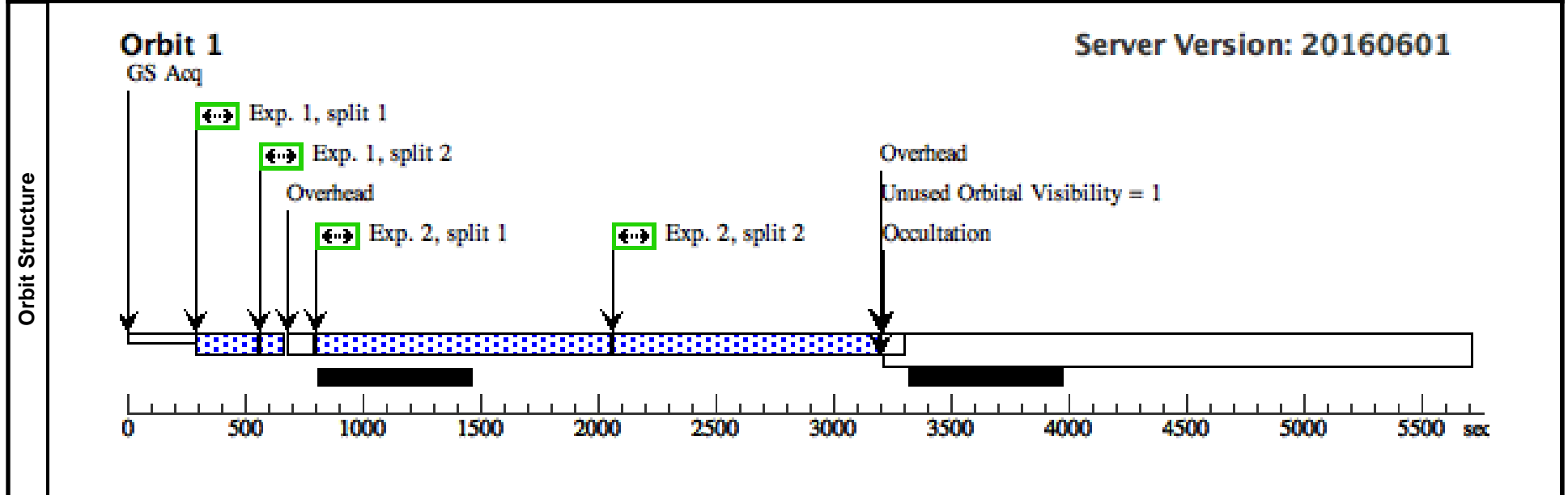


<b>Visit</b>	Proposal 14127, 133831+001056 (13), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 140D TO 160 D; ORIENT 320D TO 340 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(13)	133831+001056	RA: 13 38 31.9620 (204.6331750d) Dec: +00 11 5.93 (.18498d) Equinox: J2000		V=20.94+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.58 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	133831+001 056_img (718758)	(13) 133831+001056	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	133831+001 056_dis (718783)	(13) 133831+001056	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2256 Secs) [=>1128.0 Secs (Split 1)] [=>1128.0 Secs (Split 2)]	[1]

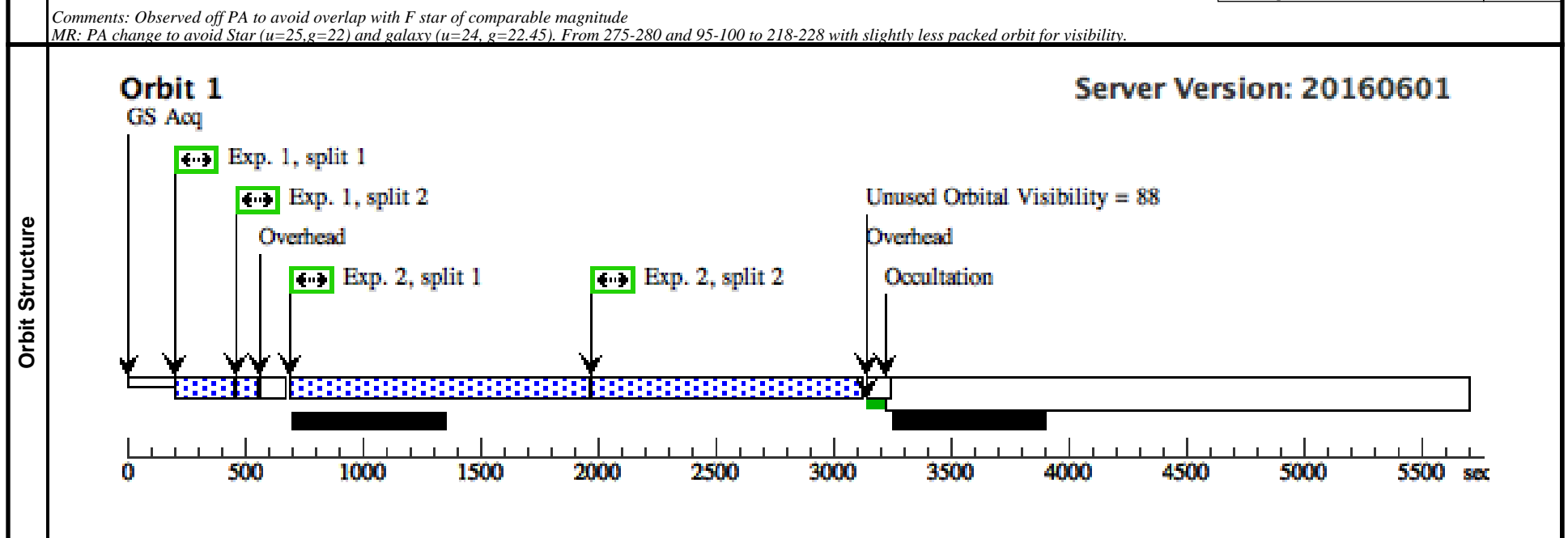
*Comments: Observed off PA for increased scheduling*



<b>Visit</b>	Proposal 14127, 110430+290749 (14), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 218D TO 228 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(14)	110430+290749	RA: 11 04 30.3480 (166.1264500d) Dec: +29 07 49.02 (29.13028d) Equinox: J2000		V=20.5+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.35</i>						

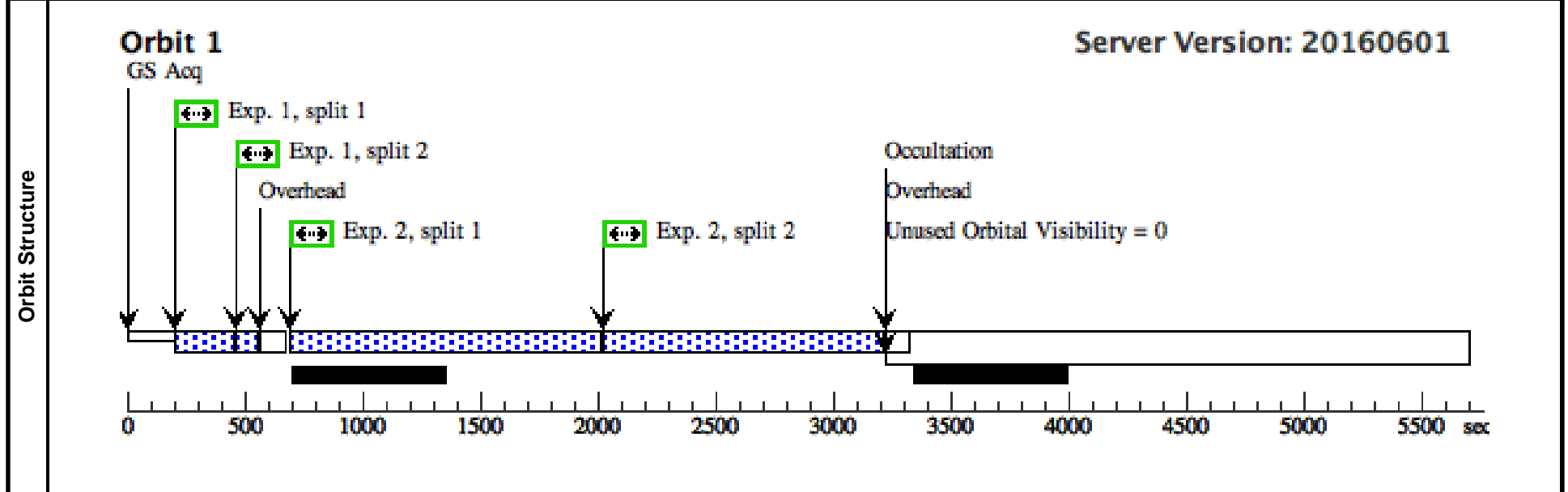
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	110430+290 749_img (718729)	(14) 110430+290749	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O SINGLE		180 Secs (180 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	110430+290 749_dis (718775)	(14) 110430+290749	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2300 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	<i>Comments: Observed off PA to avoid overlap with F star of comparable magnitude MR: PA change to avoid Star (u=25,g=22) and galaxy (u=24, g=22.45). From 275-280 and 95-100 to 218-228 with slightly less packed orbit for visibility.</i>									



<b>Visit</b>	Proposal 14127, 134544+262505 (15), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 220D TO 226 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(15)	134544+262505	RA: 13 45 43.6400 (206.4318333d) Dec: +26 25 6.94 (26.41859d) Equinox: J2000		V=20.27+/-0.01	Reference Frame: ICRS
	<i>Comments: Quasar pair: second object g = 19.97</i>					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	134544+262 505_img (718728)	(15) 134544+262505	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O SINGLE		180 Secs (180 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	134544+262 505_dis (718774)	(15) 134544+262505	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2388 Secs) [=>1194.0 Secs (Split 1)] [=>1194.0 Secs (Split 2)]	[1]
	<i>Comments: Overlapping object u &gt; 25 mag MR: PA change from 226-236 to 220-226 to avoid galaxy u=24 g=22. Reduces visibility to 11 days in 2017.</i>									

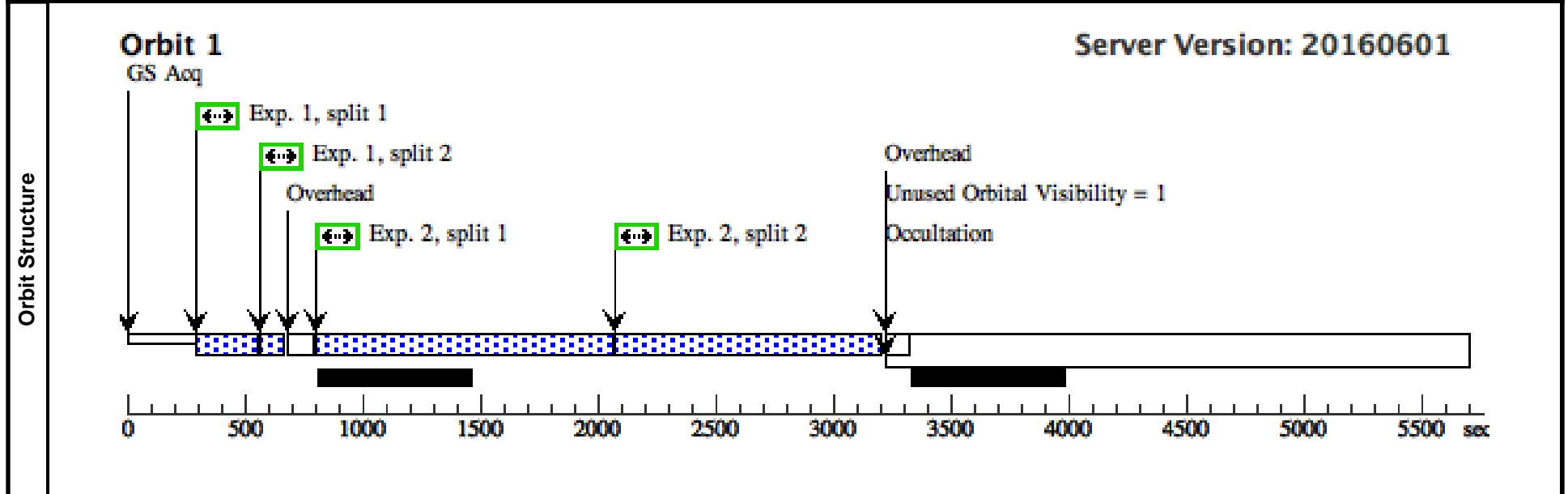


<b>Visit</b>	Proposal 14127, 013458+243050 (16), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 262D TO 262 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(16)	013458+243050	RA: 01 34 58.8600 (23.7452500d) Dec: +24 30 50.57 (24.51405d) Equinox: J2000		V=20.42+/-0.01	Reference Frame: ICRS
	<i>Comments: Quasar pair: second object g=19.85</i>					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	013458+243 050_img (718729)	(16) 013458+243050	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	013458+243 050_dis (718775)	(16) 013458+243050	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2400 Secs (2268 Secs) [=>1134.0 Secs (Split 1)] [=>1134.0 Secs (Split 2)]	[1]

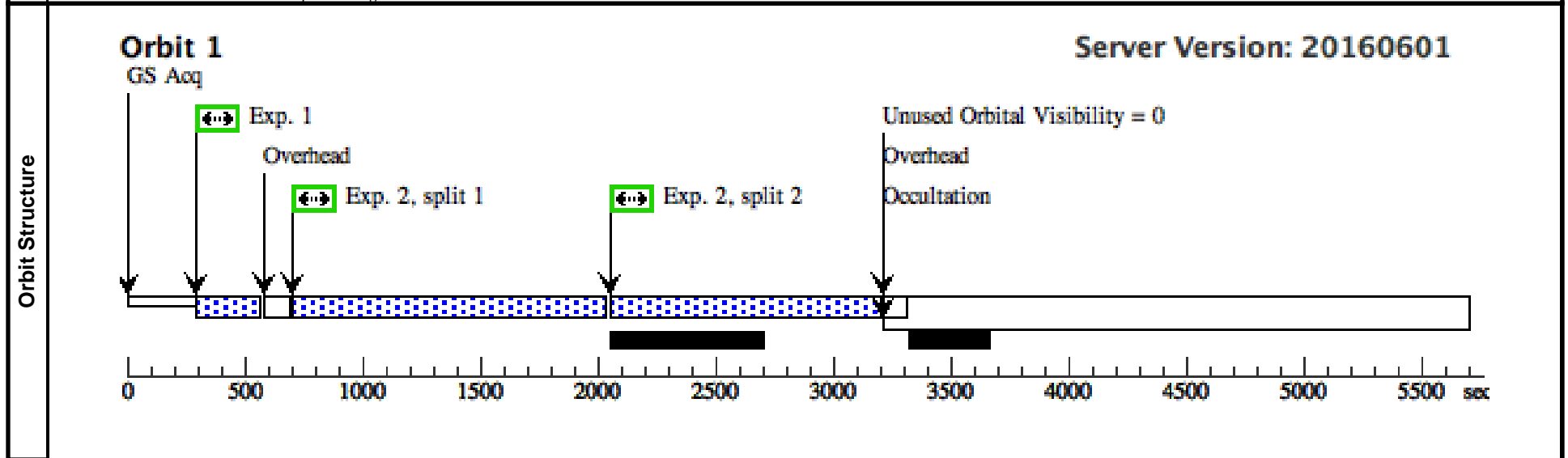
*Comments: Lock PA to maximise separation*



<b>Visit</b>	Proposal 14127, 210329+064653 (17), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 111D TO 111 D				

<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(17)	210329+064653	RA: 21 03 29.2490 (315.8718708d) Dec: +06 46 53.33 (6.78148d) Equinox: J2000		V=20.61+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.21</i>						

<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	210329+064 653_img (718755)	(17) 210329+064653	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12	POS TARG null,-50		240 Secs (240 Secs)	
	[==>]									[1]
2	210329+064 653_dis (718789)	(17) 210329+064653	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2300 Secs (2361 Secs)	
[==>1211.0 Secs (Split 1)]									[1]	
[==>(Split 2)]										
<i>Comments: Lock PA to avoid overlap with bright G star</i>										

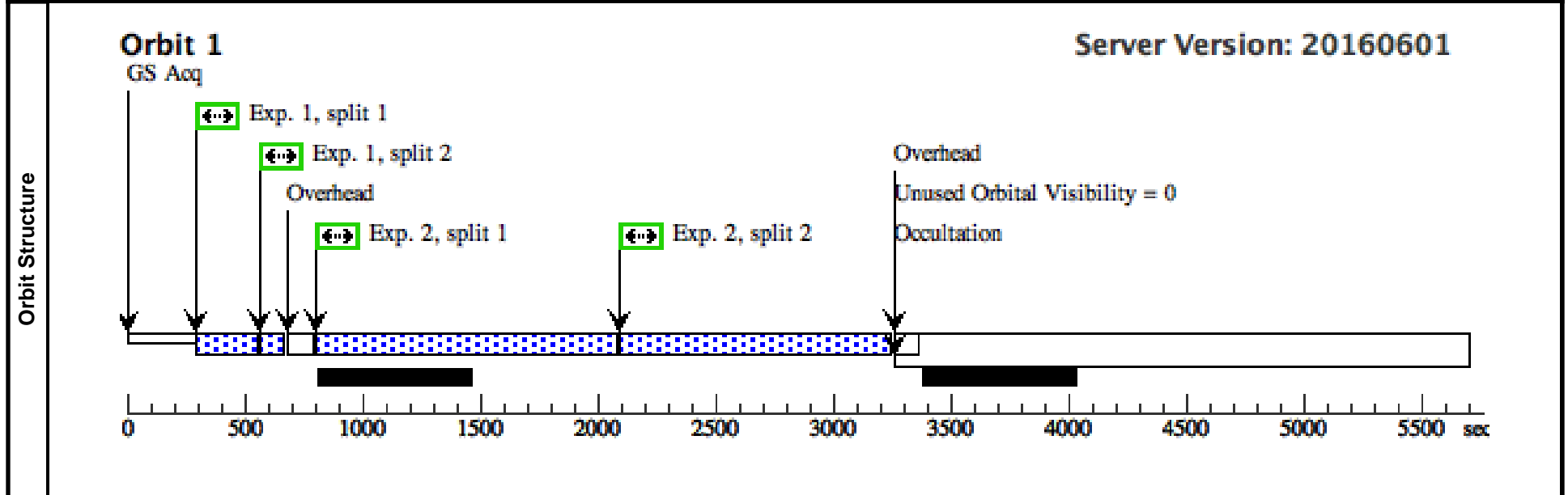


<b>Visit</b>	Proposal 14127, 100233+353127 (18), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 195D TO 220 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(18)	100233+353127	RA: 10 02 34.2110 (150.6425458d) Dec: +35 31 28.68 (35.52463d) Equinox: J2000		V=20.04+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 18.87</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	100233+353127_img (718736)	(18) 100233+353127	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	100233+353127_dis (718781)	(18) 100233+353127	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2314 Secs) [=>1157.0 Secs (Split 1)] [=>1157.0 Secs (Split 2)]	[1]

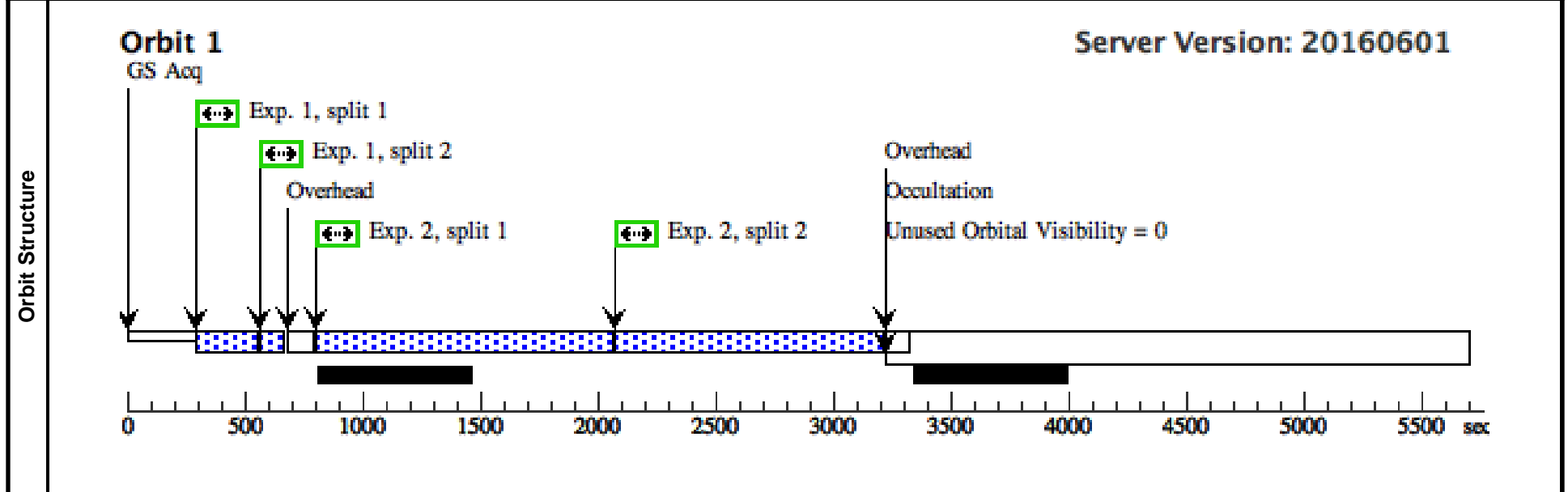
*Comments: MR: PA increase to 195-220 to increase visibility*



<b>Visit</b>	Proposal 14127, 114504+285713 (19), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 222D TO 244 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(19)	114504+285713	RA: 11 45 4.3600 (176.2681667d) Dec: +28 57 13.06 (28.95363d) Equinox: J2000		V=20.65+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.34</i>						

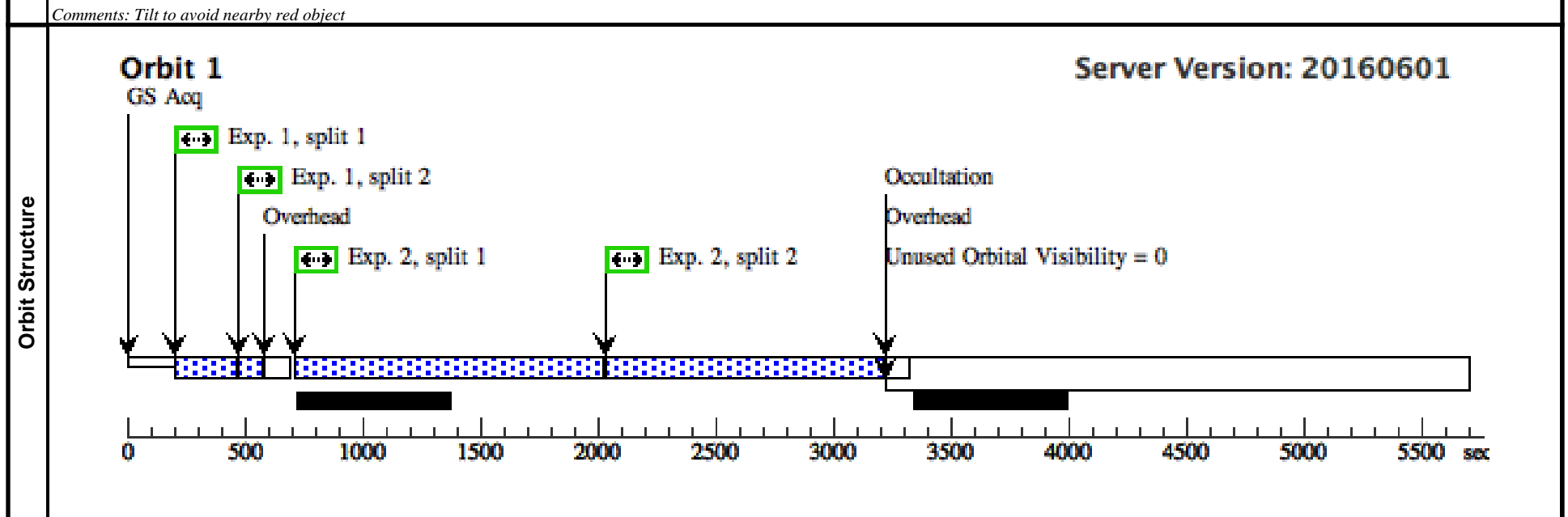
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	114504+285 713_img (718729)	(19) 114504+285713	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	114504+285 713_dis (718775)	(19) 114504+285713	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2276 Secs) [=>1138.0 Secs (Split 1)] [=>1138.0 Secs (Split 2)]	[1]
	<i>Comments: MR: PA change from 222-232 to 222-250 to increase visibility. MF: Stop at 244 to avoid galaxies in NE.</i>									



<b>Visit</b>	Proposal 14127, 084624+271002 (20), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 140D TO 150 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(20)	084624+271002	RA: 08 46 24.5050 (131.6021042d) Dec: +27 10 2.45 (27.16735d) Equinox: J2000		V=20.90+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.67</i>						

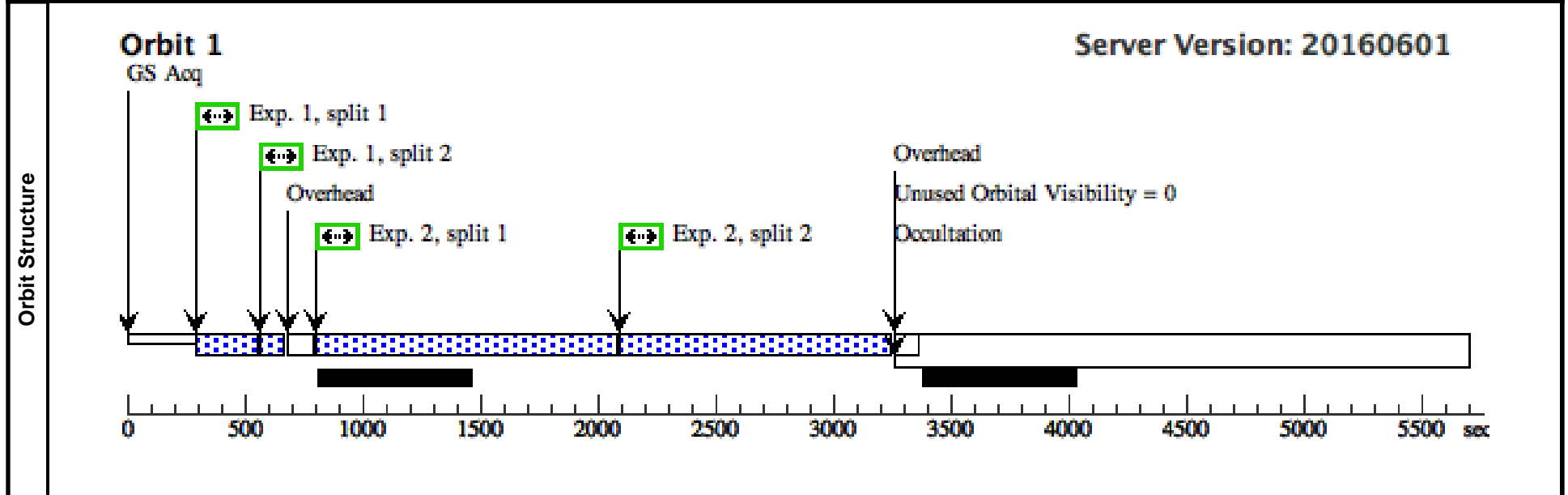
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	084624+271002_img (718730)	(20) 084624+271002	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O SINGLE		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	084624+271002_dis (718776)	(20) 084624+271002	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2368 Secs) [=>1184.0 Secs (Split 1)] [=>1184.0 Secs (Split 2)]	[1]
	<i>Comments: Tilt to avoid nearby red object</i>									



<b>Visit</b>	Proposal 14127, 085230+350000 (21), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 80D TO 90 D; ORIENT 260D TO 270 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(21)	085230+350000	RA: 08 52 30.2220 (133.1259250d) Dec: +35 00 3.66 (35.00102d) Equinox: J2000		V=20.40+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.99</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	085230+350000_img (718737)	(21) 085230+350000	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	085230+350000_dis (718782)	(21) 085230+350000	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2314 Secs)	
								[==>1157.0 Secs (Split 1)] [==>1157.0 Secs (Split 2)]	[1]	

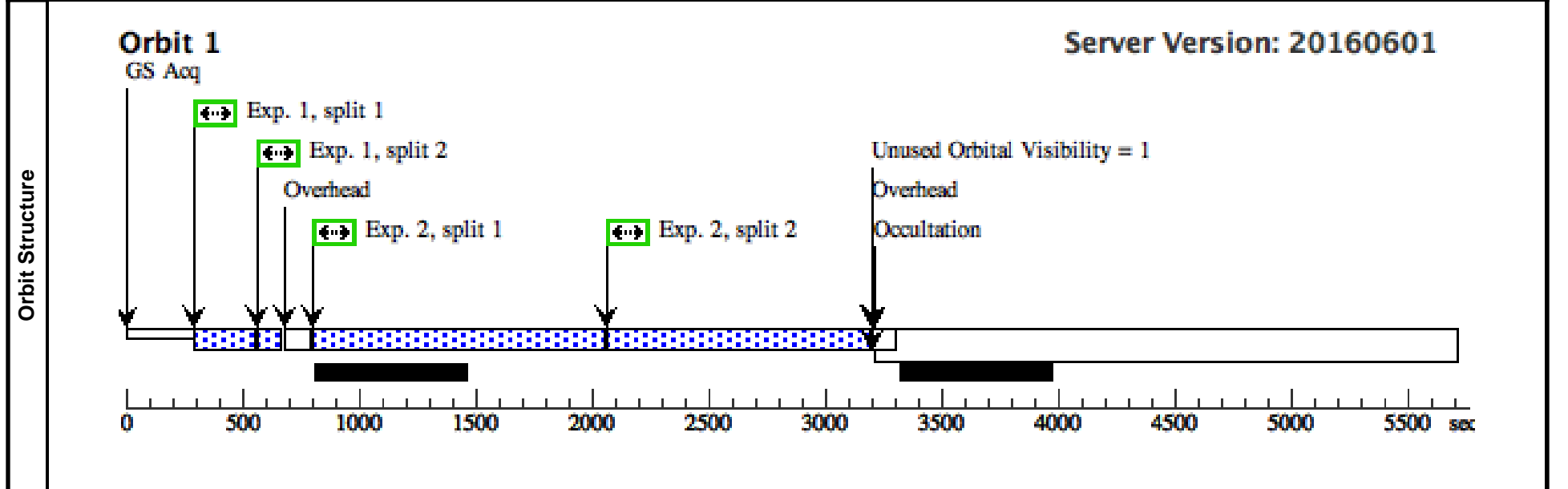


<b>Visit</b>	Proposal 14127, 002424-012825 (22), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 23D TO 35 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(22)	002424-012825	RA: 00 24 24.2190 (6.1009125d) Dec: -01 28 25.80 (-1.47383d) Equinox: J2000		V=18.94+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 18.90</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	002424-012 825_img (718726)	(22) 002424-012825	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	002424-012 825_dis (718772)	(22) 002424-012825	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2400 Secs (2256 Secs) [=>1128.0 Secs (Split 1)] [=>1128.0 Secs (Split 2)]	[1]

*Comments: Tilt angle for better scheduling and minimise overlap*

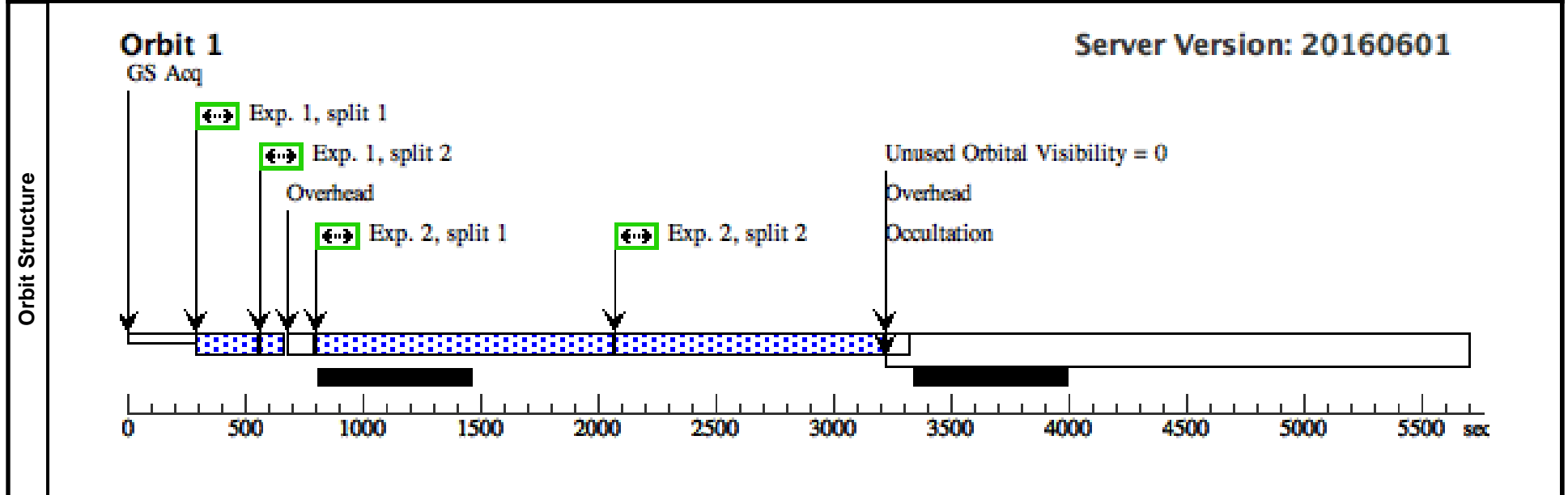


<b>Visit</b>	Proposal 14127, 073522+295710 (23), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 109D TO 115 D; ORIENT 289D TO 295 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(23)	073522+295710	RA: 07 35 22.4290 (113.8434542d) Dec: +29 57 10.17 (29.95283d) Equinox: J2000		V=20.57+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.42</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	073522+295710_img (718729)	(23) 073522+295710	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)		
										[=>(Split 1)]	[1]
										[=>(Split 2)]	
2	073522+295710_dis (718775)	(23) 073522+295710	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2450 Secs (2276 Secs)		
									[=>1138.0 Secs (Split 1)]	[1]	
									[=>1138.0 Secs (Split 2)]		

*Comments: Tweaked angle from PA position to avoid overlap with nearby K star*

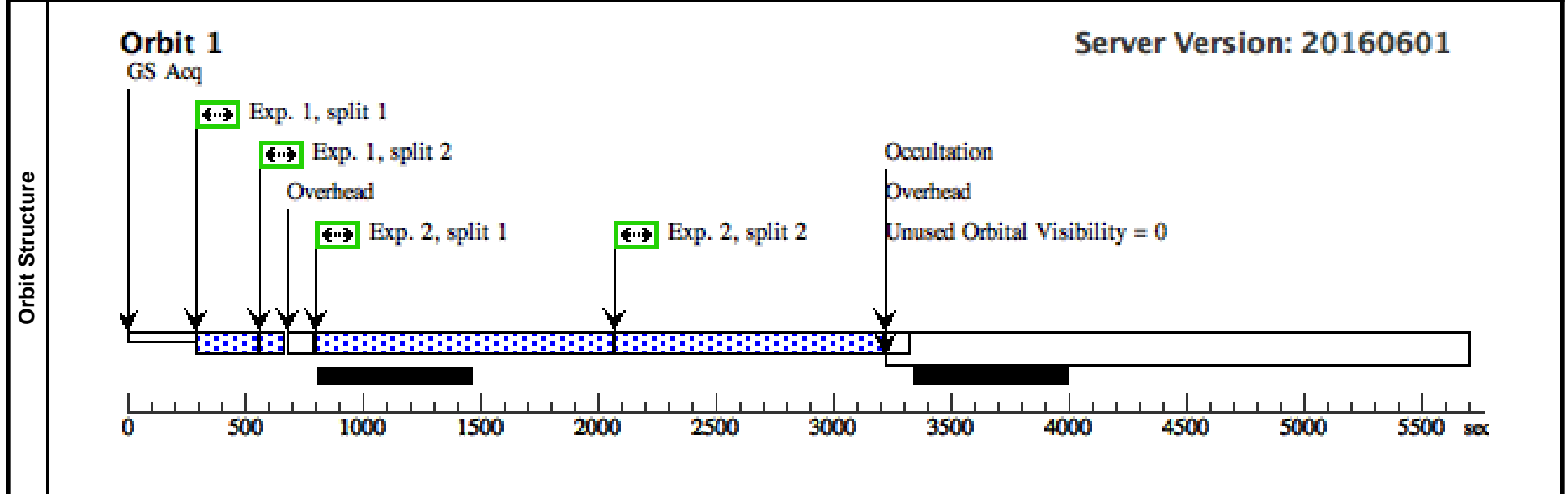


<b>Visit</b>	Proposal 14127, 143104+270524 (24), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 135D TO 140 D; ORIENT 315D TO 325 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(24)	143104+270524	RA: 14 31 4.9770 (217.7707375d) Dec: +27 05 28.63 (27.09129d) Equinox: J2000		V=20.26+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.82</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	143104+270 524_img (718737)	(24) 143104+270524	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	143104+270 524_dis (718782)	(24) 143104+270524	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2276 Secs)	
								[==>1138.0 Secs (Split 1)] [==>1138.0 Secs (Split 2)]	[1]	

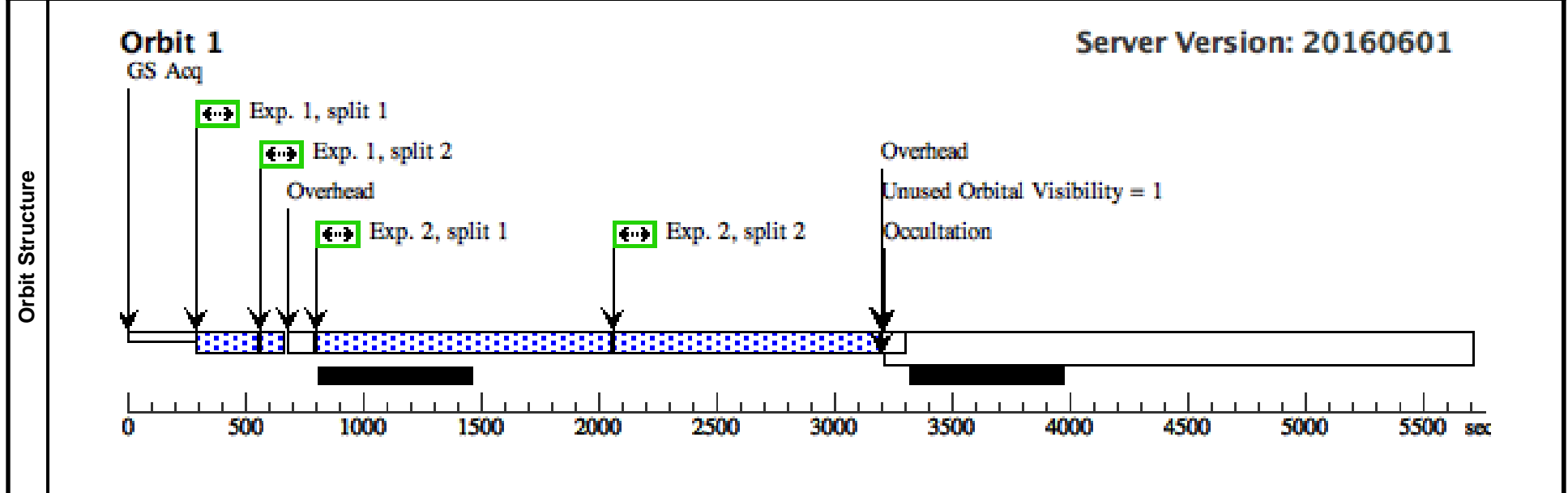
*Comments: MR: PA change to avoid star (u=24.7, g=23.20) from 174-184 and 354-4 to 135-145 and 315-325. Significant increase in visibility too.*



<b>Visit</b>	Proposal 14127, 224856+030700 (25), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 65D TO 65 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(25)	224856+030700	RA: 22 48 56.8310 (342.2367958d) Dec: +03 07 0.25 (3.11674d) Equinox: J2000		V=20.88+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.63</i>						

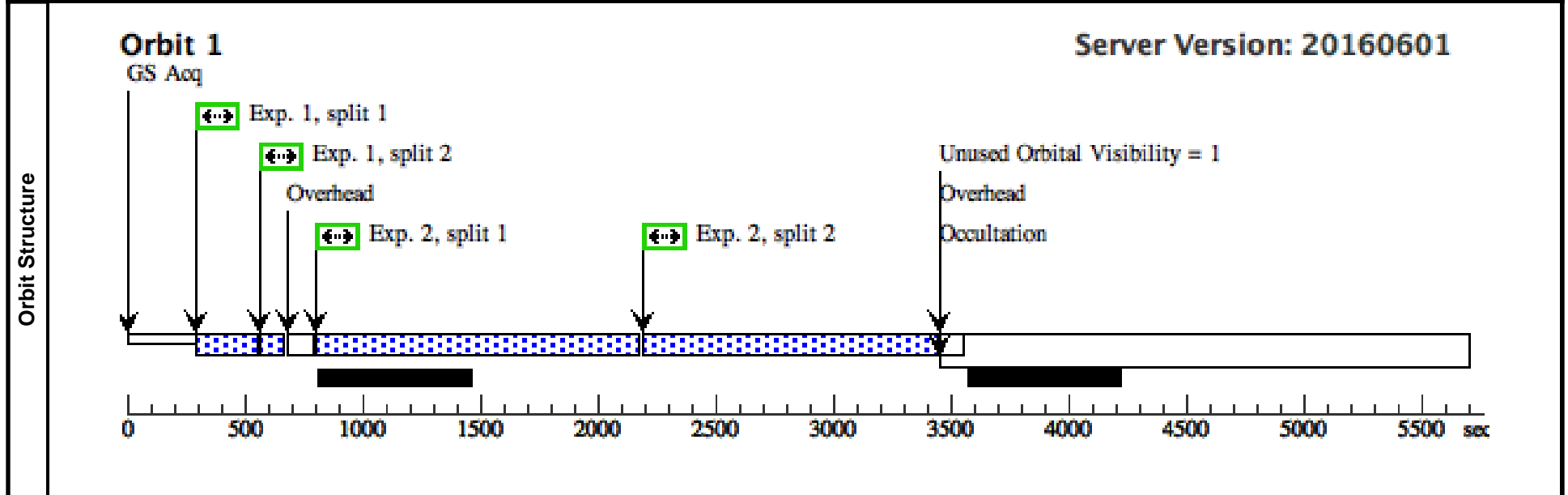
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	224856+030 700_img (718758)	(25) 224856+030700	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	224856+030 700_dis	(25) 224856+030700	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2256 Secs)	
								[==>1128.0 Secs (Split 1)] [==>1128.0 Secs (Split 2)]	[1]	
<i>Comments: Bright star is G5V - no saturation (WFC3UVIS.im.718810) Object potentially aligned is KOV star, with low flux below 4000A (WFC3UVIS.sp.718811), but best observed at titled angle (65 deg)</i>										



<b>Visit</b>	Proposal 14127, 122545+564440 (26), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 84D TO 94 D; ORIENT 264D TO 274 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(26)	122545+564440	RA: 12 25 45.2370 (186.4384875d) Dec: +56 44 45.12 (56.74587d) Equinox: J2000		V=20.69+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.36</i>						

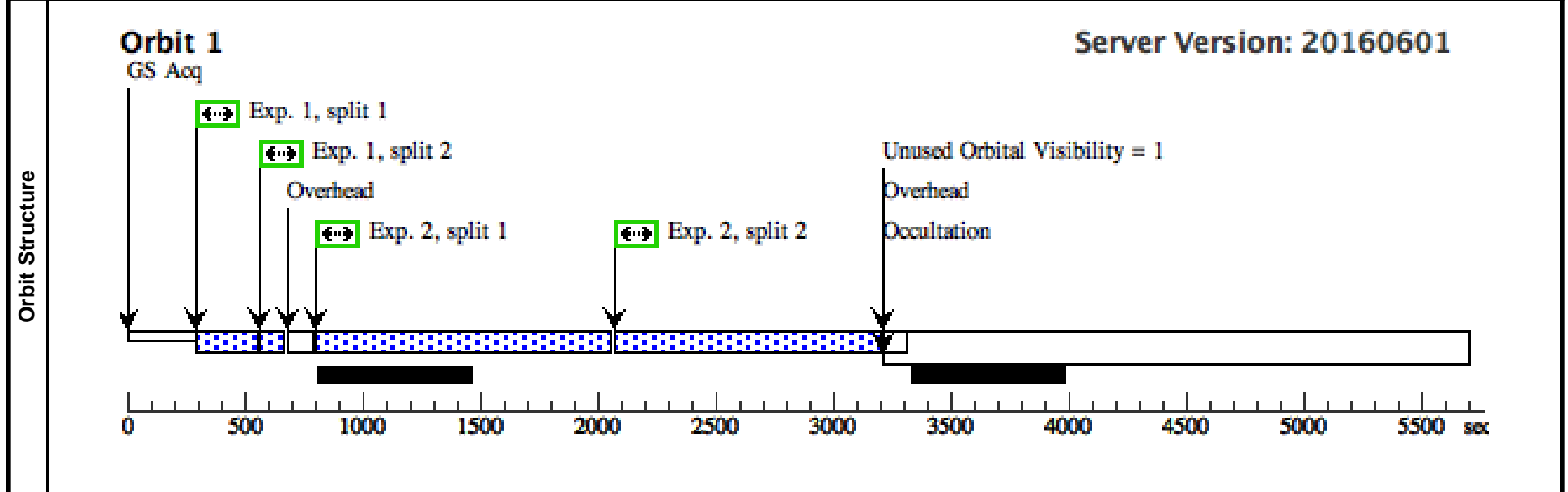
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	122545+564 440_img (718758)	(26) 122545+564440	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	122545+564 440_dis (718782)	(26) 122545+564440	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2600 Secs (2502 Secs) [=>1251.0 Secs (Split 1)] [=>1251.0 Secs (Split 2)]	[1]



<b>Visit</b>	Proposal 14127, 092056+131057 (27), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 103D TO 107 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(27)	092056+131057	RA: 09 20 56.2370 (140.2343208d) Dec: +13 10 57.43 (13.18262d) Equinox: J2000		V=19.29+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.20</i>						

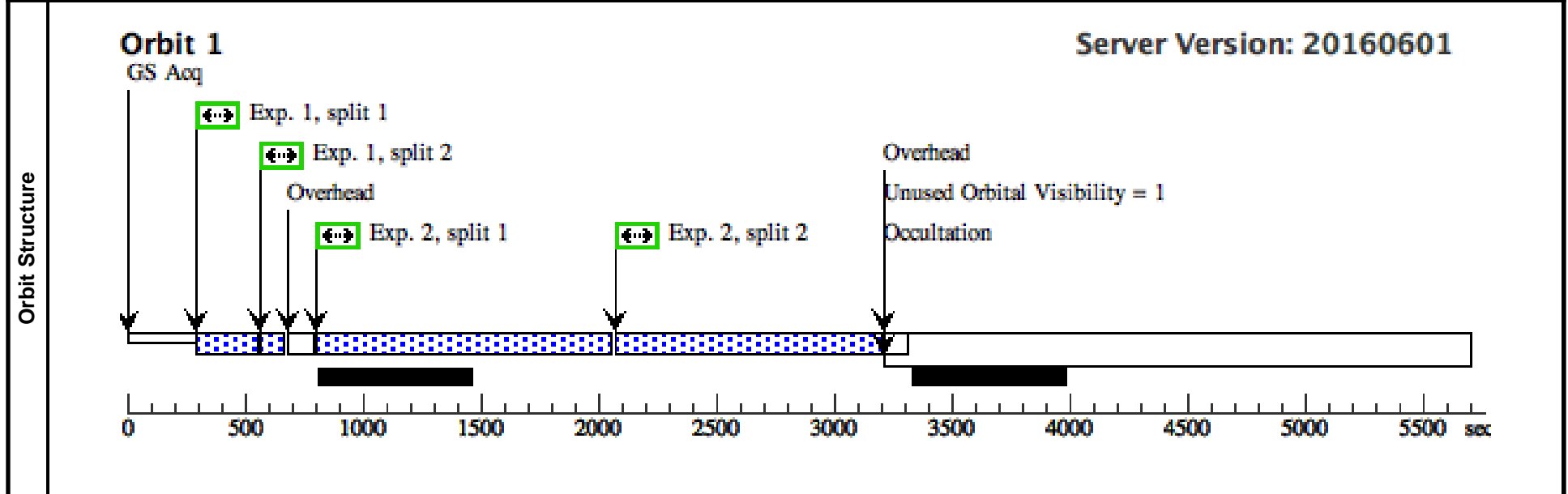
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	092056+131057_img (718741)	(27) 092056+131057	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-83		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	092056+131057_dis (718780)	(27) 092056+131057	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-83		2400 Secs (2264 Secs)	
								[==>1132.0 Secs (Split 1)] [==>1132.0 Secs (Split 2)]	[1]	
<i>Comments: Two bright stars in the field, but not overlapping in X or Y MR: y offset to -83 from -50 to avoid bright star.</i>										



<b>Visit</b>	Proposal 14127, 034407+101520 (28), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 280D TO 282 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(28)	034407+101520	RA: 03 44 6.6440 (56.0276833d) Dec: +10 15 9.83 (10.25273d) Equinox: J2000		V=20.54+/-0.01	Reference Frame: ICRS
	<i>Comments: Quasar pair: second object g = 19.56</i>					
	<i>Added in P2</i>					

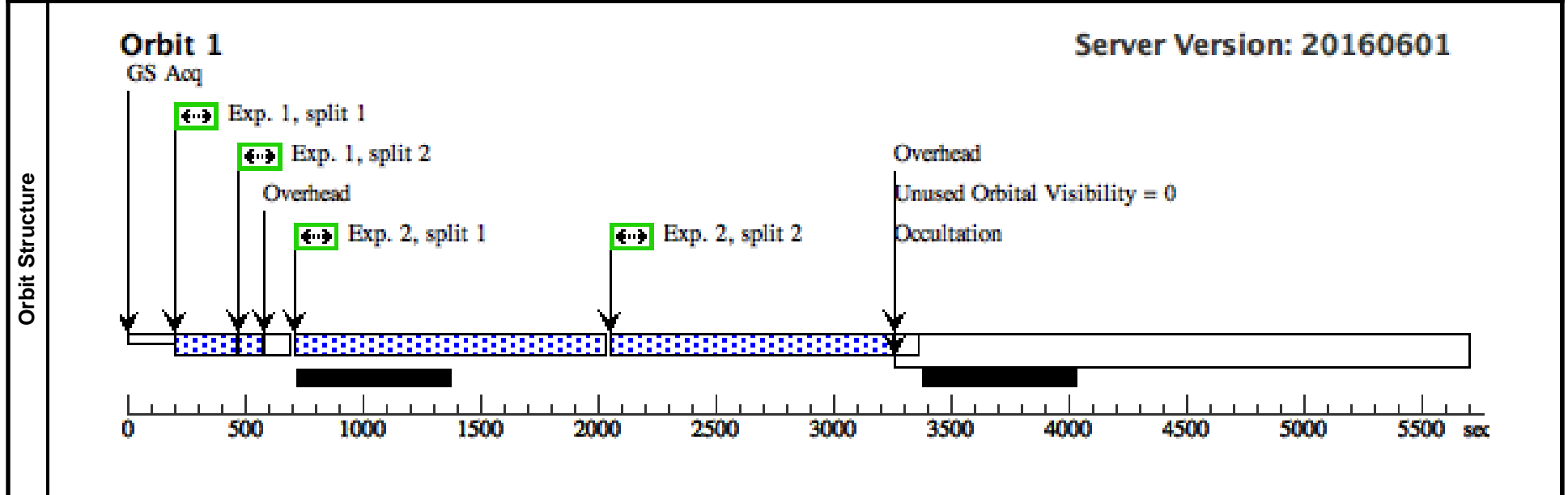
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	034407+101 520_img (718729)	(28) 034407+101520	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	034407+101 520_dis (718775)	(28) 034407+101520	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2264 Secs) [=>1132.0 Secs (Split 1)] [=>1132.0 Secs (Split 2)]	[1]
	<i>Comments: Lock PA to void overlap - nearby source is red</i>									
	<i>MR: PA change from 292 to 280-282 to avoid a red star, slight decreasing gso separation</i>									



<b>Visit</b>	<b>Proposal 14127, 140953+391953 (29), scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 268D TO 272 D; ORIENT 88D TO 92 D Comments: Removed from "on hold" on Aug 17 2015.				

<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(29)	140953+391953	RA: 14 09 53.8780 (212.4744917d) Dec: +39 19 53.44 (39.33151d) Equinox: J2000		V=20.81+/-0.01	Reference Frame: ICRS
Comments: Quasar pair: second object g = 20.16						

<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	140953+391953_img (718730)	(29) 140953+391953	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O SINGLE		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	140953+391953_dis (718776)	(29) 140953+391953	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2406 Secs) [=>1203.0 Secs (Split 1)] [=>1203.0 Secs (Split 2)]	[1]
Comments: Overlapping object u = 26 mag. Tilted PA to minimise that. MR: PA change from 105-115, 285-295 to 88-92 and 268-272										

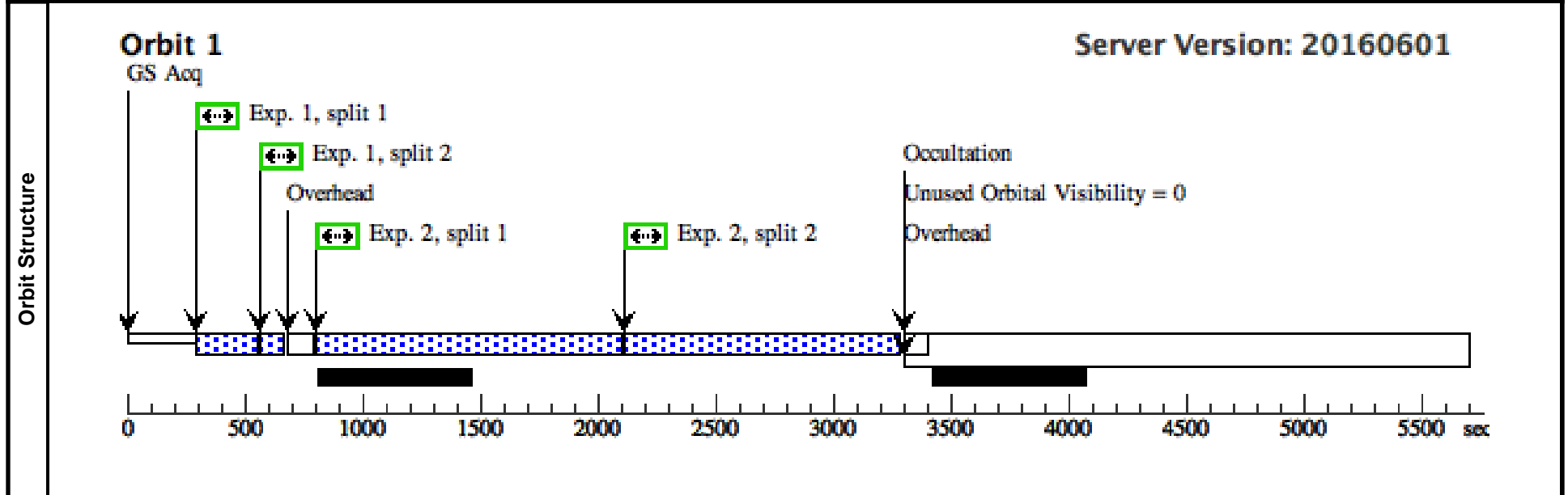


<b>Visit</b>	Proposal 14127, 144254+405535 (30), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 200D TO 200 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(30)	144254+405535	RA: 14 42 54.6050 (220.7275208d) Dec: +40 55 35.07 (40.92641d) Equinox: J2000		V=19.20+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair (maybe lense): second object g = 18.54 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	144254+405 535_img (718740)	(30) 144254+405535	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	144254+405 535_dis (718786)	(30) 144254+405535	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2550 Secs (2354 Secs) [=>1177.0 Secs (Split 1)] [=>1177.0 Secs (Split 2)]	[1]

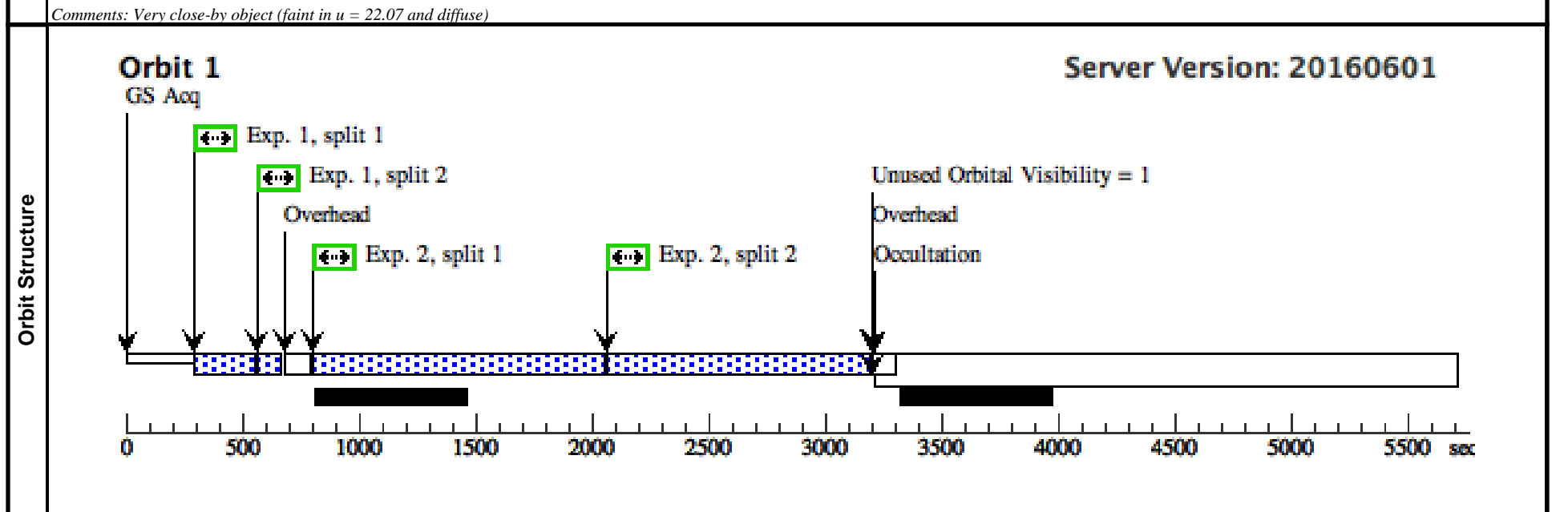
*Comments: Tilt/lock angle to avoid red sources in the south. Nearby red galaxy.*



<b>Visit</b>	Proposal 14127, 105644-005933 (31), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 77D TO 87 D; ORIENT 257D TO 267 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(31)	105644-005933	RA: 10 56 45.2480 (164.1885333d) Dec: -00 59 38.12 (-.99392d) Equinox: J2000		V=20.97+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.13</i>						

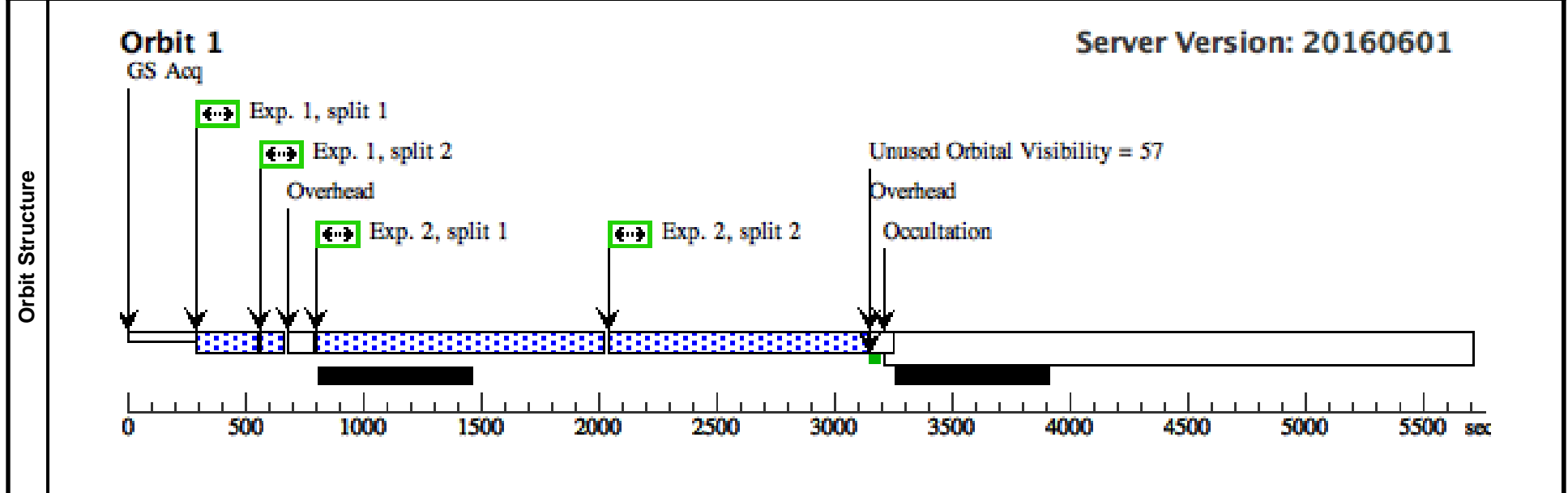
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	105644-005933_img (718730)	(31) 105644-005933	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	105644-005933_dis (718776)	(31) 105644-005933	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2400 Secs (2256 Secs) [=>1128.0 Secs (Split 1)] [=>1128.0 Secs (Split 2)]	[1]
	<i>Comments: Very close-by object (faint in u = 22.07 and diffuse)</i>									



<b>Visit</b>	Proposal 14127, 133146+033545 (32), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 50D TO 60 D; ORIENT 230D TO 250 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(32)	133146+033545	RA: 13 31 46.2010 (202.9425042d) Dec: +03 35 45.51 (3.59598d) Equinox: J2000		V=20.91+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.31 Added in P2</i>						

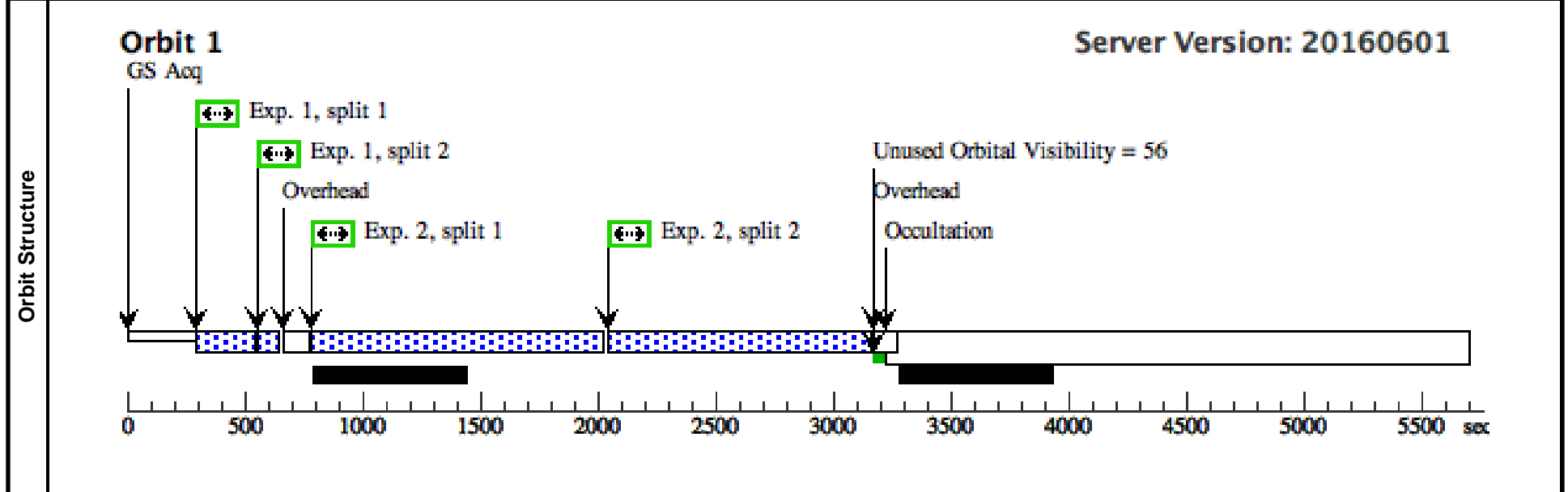
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	133146+033 545_img (718755)	(32) 133146+033545	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	133146+033 545_dis (718790)	(32) 133146+033545	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2200 Secs)	
								[==>1100.0 Secs (Split 1)] [==>1100.0 Secs (Split 2)]	[1]	
<i>Comments: Do not pack orbit for scheduling MR: Added PA range from 230-240 to 230-250 to increase visibility. Even with this change, still can't pack the orbits. I think this increase is ok.</i>										



<b>Visit</b>	Proposal 14127, 133209+252301 (33), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 165D TO 182 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(33)	133209+252301	RA: 13 32 9.2680 (203.0386167d) Dec: +25 23 1.36 (25.38371d) Equinox: J2000		V=20.15+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.11</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	133209+252 301_img (718728)	(33) 133209+252301	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		180 Secs (180 Secs)		
										[=>(Split 1)]	[1]
										[=>(Split 2)]	
2	133209+252 301_dis	(33) 133209+252301	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2450 Secs (2240 Secs)		
									[=>1120.0 Secs (Split 1)]	[1]	
									[=>1120.0 Secs (Split 2)]		
<i>Comments: Do not pack orbit for visibility</i>											
<i>MR: Increased PA range from 172-182 to 165-182, increasing visibility from 6 to 9 days.</i>											

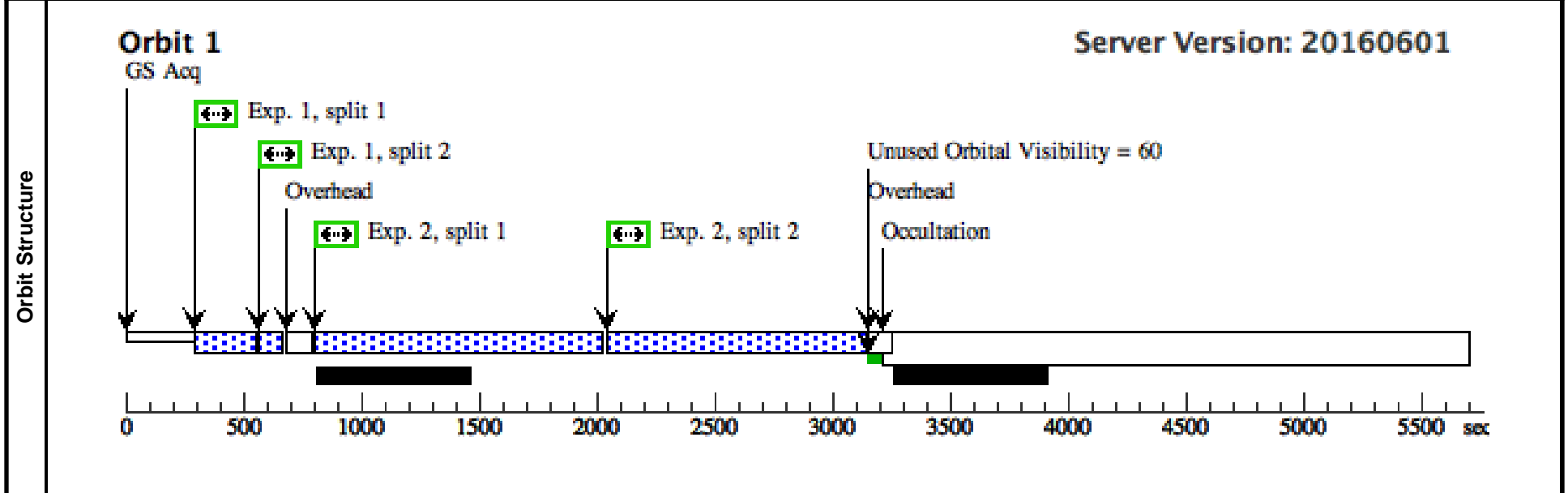


<b>Visit</b>	Proposal 14127, 224204+055830 (34), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 191D TO 211 D; ORIENT 11D TO 21 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(34)	224204+055830	RA: 22 42 4.3730 (340.5182208d) Dec: +05 58 28.63 (5.97462d) Equinox: J2000		V=20.98+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.62 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	224204+055830_img (718755)	(34) 224204+055830	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	224204+055830_dis (718790)	(34) 224204+055830	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2200 Secs) [=>1100.0 Secs (Split 1)] [=>1100.0 Secs (Split 2)]	[1]

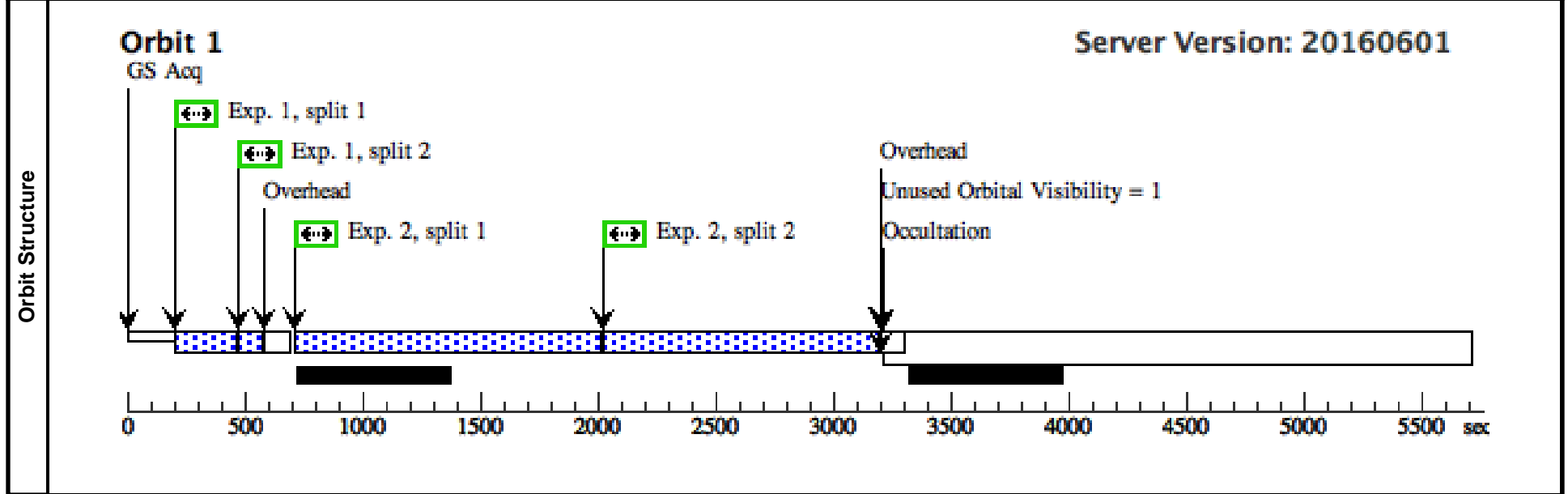
*Comments: Do not pack orbit for scheduling - nearby source has u = 23.5  
MR: Increased PA range from 191-201 to 191-211. Increased visibility from 3 days to 11 days. Nothing we can do about faint star nearby. u-band of 23.42, so it should be ok.*



<b>Visit</b>	Proposal 14127, 115031+045353 (35), completed <span style="float: right;">Fri Jul 29 17:07:19 GMT 2016</span>				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 140D TO 160 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(35)	115031+045353	RA: 11 50 31.1430 (177.6297625d) Dec: +04 53 53.26 (4.89813d) Equinox: J2000		V=20.62+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.52 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	115031+045 353_img (718755)	(35) 115031+045353	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O SINGLE		200 Secs (200 Secs) [==>(Split 1)] [==>(Split 2)]	[1]
	2	115031+045 353_dis	(35) 115031+045353	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2348 Secs) [==>1174.0 Secs (Split 1)] [==>1174.0 Secs (Split 2)]	[1]
	<i>Comments: Observe at angle for scheduling MR: Increased PA range from 150-160 to 140-160, to increase visibility from 4 days to 14 days. New PA range does not overlap other targets.</i>									

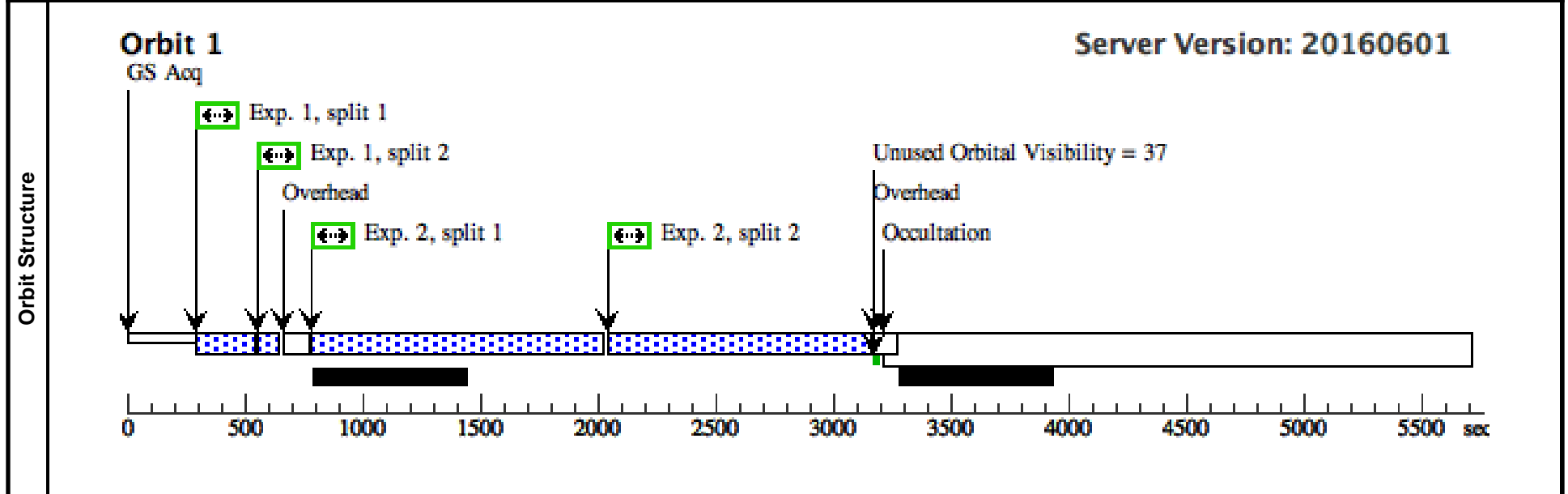


<b>Visit</b>	Proposal 14127, 234819+005721 (36), scheduled				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 210D TO 223 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(36)	234819+005721	RA: 23 48 19.1910 (357.0799625d) Dec: +00 57 17.59 (.95489d) Equinox: J2000		V=20.77+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 18.92 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	234819+005721_img (718729)	(36) 234819+005721	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		180 Secs (180 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	234819+005721_dis (718775)	(36) 234819+005721	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2240 Secs)	
								[==>1120.0 Secs (Split 1)] [==>1120.0 Secs (Split 2)]	[1]	

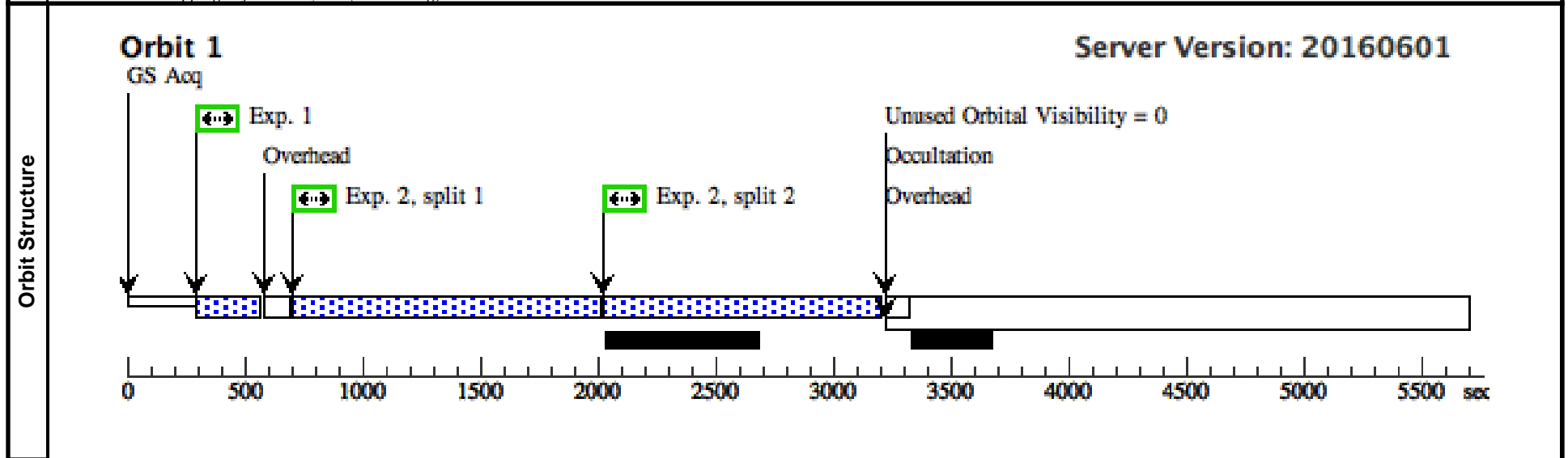
*Comments: Observe at angle for overlap with bright source and scheduling  
Do not pack orbit  
MR: Increased PA range from 210-220 to 210-223 to increase visibility from 4 days to 18 days. New PA does not cause overlap with bright object which is constraining.*



<b>Visit</b>	Proposal 14127, 224136+230909 (37), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 122D TO 132 D; ORIENT 302D TO 312 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(37)	224136+230909	RA: 22 41 37.0380 (340.4043250d) Dec: +23 09 1.04 (23.15029d) Equinox: J2000		V=20.78+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second image g = 19.88</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	224136+230909_img (718758)	(37) 224136+230909	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12	POS TARG null,-50		240 Secs (240 Secs) [==>]	[1]
	2	224136+230909_dis (718783)	(37) 224136+230909	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2370 Secs) [==>1185.0 Secs (Split 1)] [==>1185.0 Secs (Split 2)]	[1]
<i>Comments: Overlapping object is very red (u &gt; 24 mag)</i>										

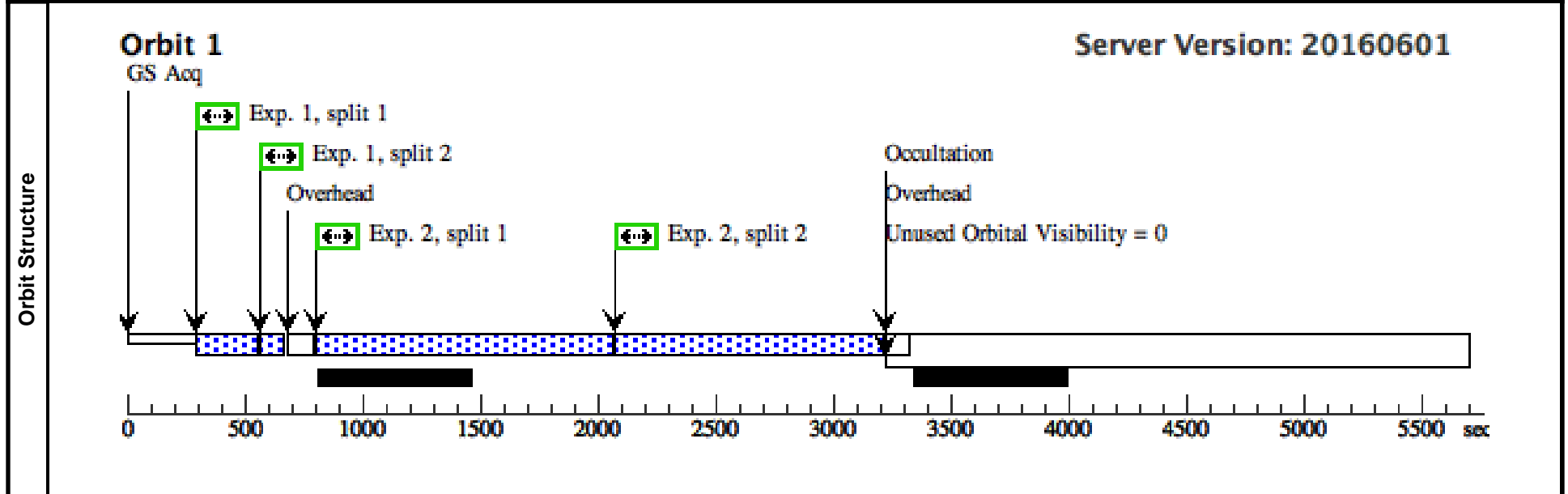


<b>Visit</b>	Proposal 14127, 172855+263449 (38), implementation				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 115D TO 115 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(38)	172855+263449	RA: 17 28 55.3160 (262.2304833d) Dec: +26 34 58.14 (26.58282d) Equinox: J2000		V=20.14+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.82</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	172855+263449_img (718736)	(38) 172855+263449	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	172855+263449_dis (718781)	(38) 172855+263449	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2276 Secs)	
								[==>1138.0 Secs (Split 1)] [==>1138.0 Secs (Split 2)]	[1]	

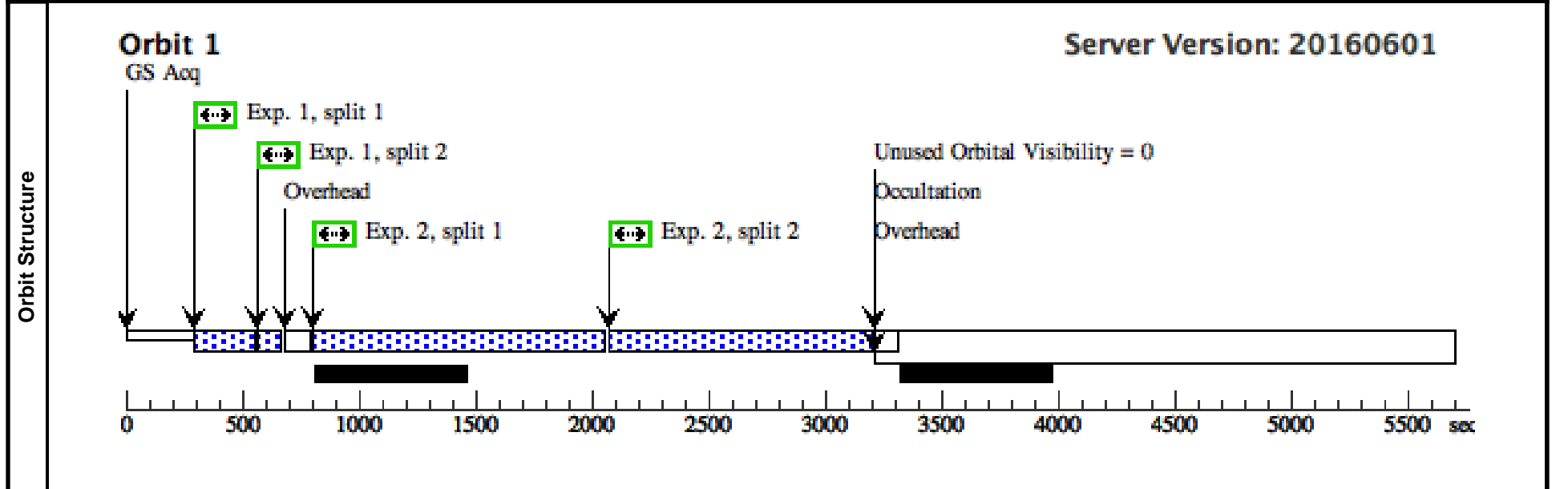
*Comments: Lock PA to avoid bright star and red galaxy*



<b>Visit</b>	Proposal 14127, 224325-061351 (39), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 40D TO 50 D; ORIENT 220D TO 230 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(39)	224325-061351	RA: 22 43 25.0480 (340.8543667d) Dec: -06 13 50.34 (-6.23065d) Equinox: J2000		V=20.84+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.15</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config, Mode, Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	224325-061351_img (718755)	(39) 224325-061351	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	224325-061351_dis (718790)	(39) 224325-061351	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2260 Secs)	
								[==>1130.0 Secs (Split 1)] [==>1130.0 Secs (Split 2)]	[1]	

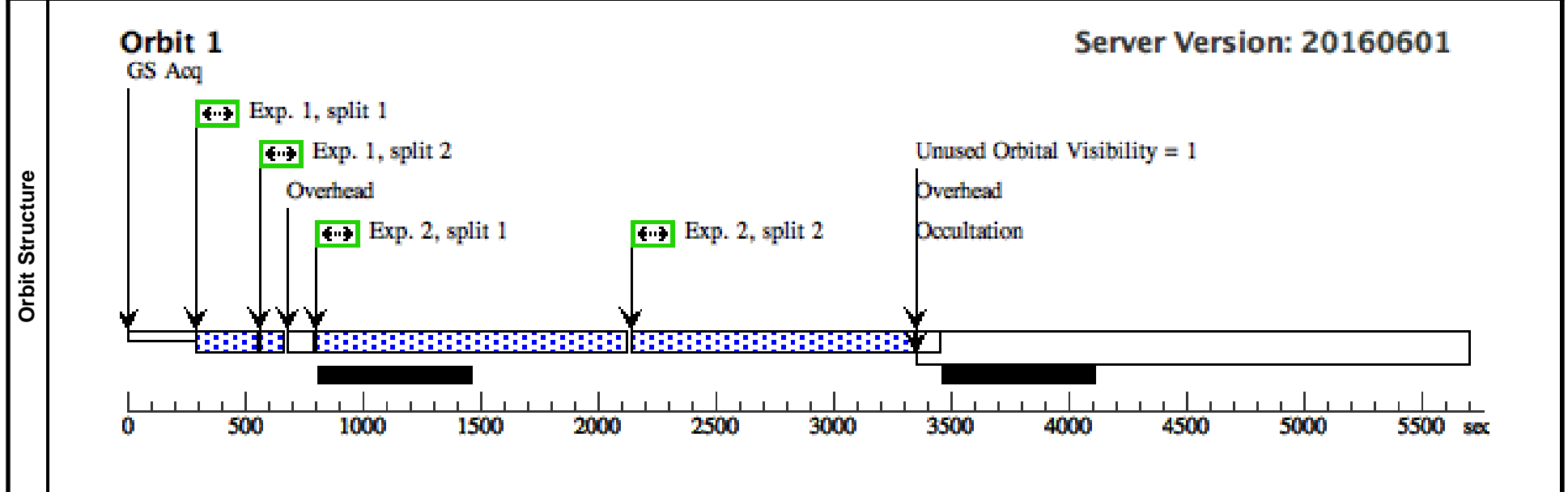


<b>Visit</b>	Proposal 14127, 133222+471712 (40), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 286D TO 296 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(40)	133222+471712	RA: 13 32 21.7100 (203.0904583d) Dec: +47 17 21.38 (47.28927d) Equinox: J2000		V=20.78+/-0.01	Reference Frame: ICRS

Comments: Quasar pair: second object g = 20.67

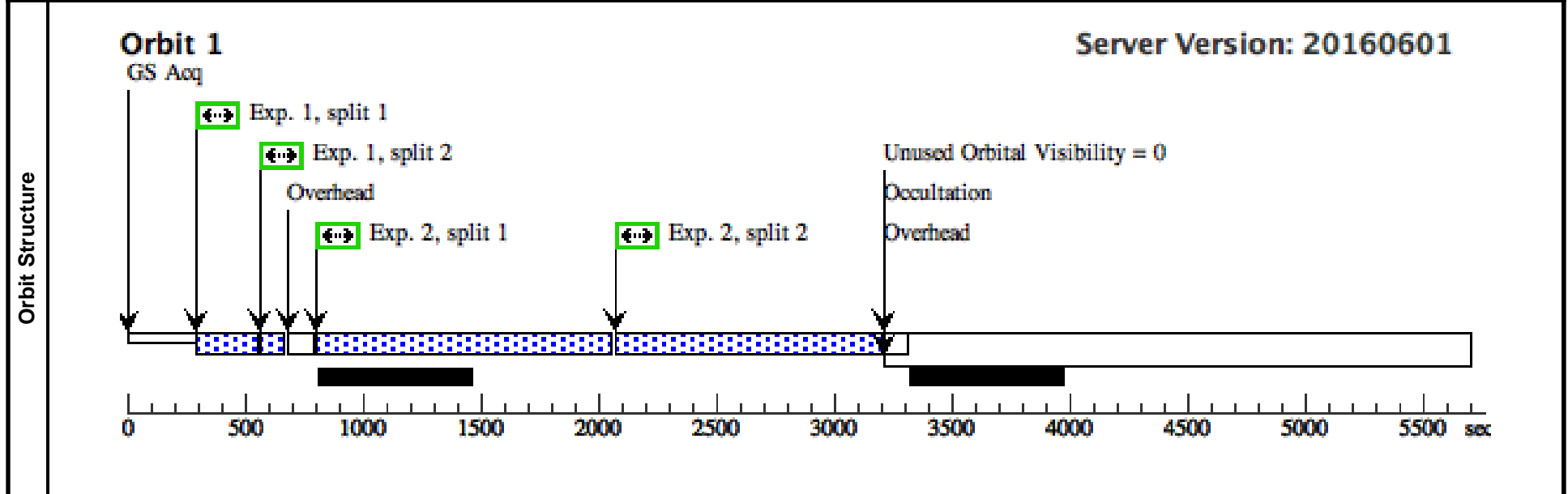
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	133222+471712_img (718758)	(40) 133222+471712	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-35		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	133222+471712_dis (718783)	(40) 133222+471712	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-35		2500 Secs (2398 Secs) [=>1199.0 Secs (Split 1)] [=>1199.0 Secs (Split 2)]	[1]
	Comments: Two bright stars on chip - no overlap X/Y Y-offset to -35 from -50 to avoid bright stars.									



<b>Visit</b>	Proposal 14127, 161302+080814 (41), scheduled				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 140D TO 150 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(41)	161302+080814	RA: 16 13 1.6930 (243.2570542d) Dec: +08 08 6.05 (8.13501d) Equinox: J2000		V=19.58+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 18.94</i>						

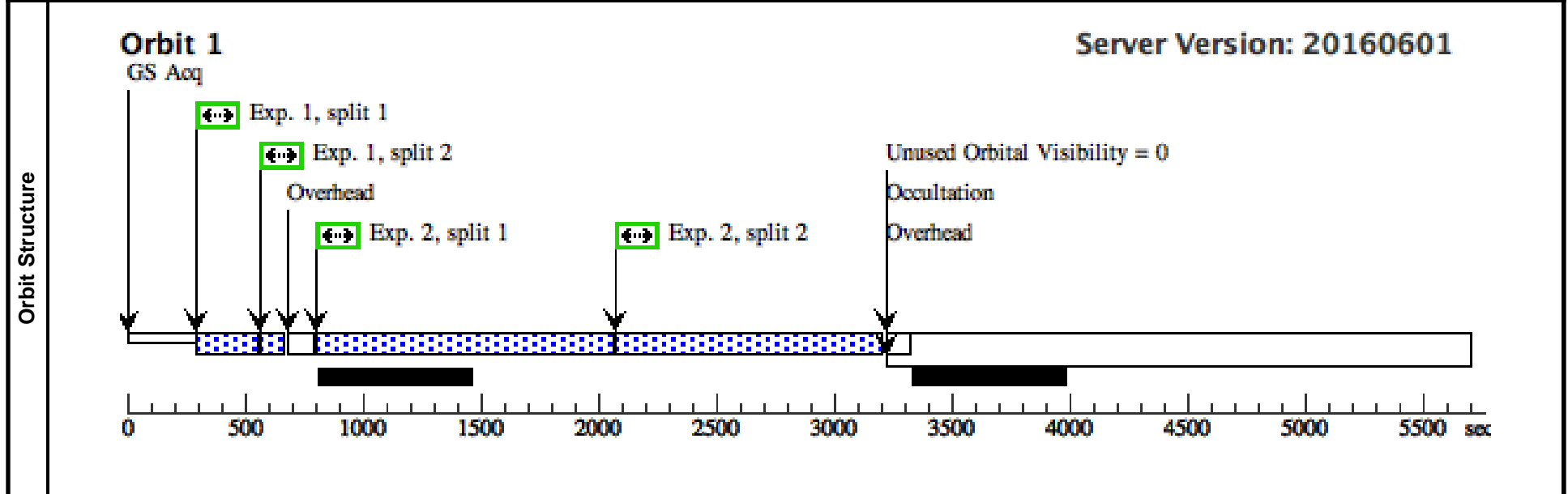
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	161302+080 814_img (718735)	(41) 161302+080814	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)		
										[==>(Split 1)]	[1]
										[==>(Split 2)]	
2	161302+080 814_dis (718780)	(41) 161302+080814	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2400 Secs (2260 Secs)		
									[==>1130.0 Secs (Split 1)]	[1]	
									[==>1130.0 Secs (Split 2)]		
<i>Comments: Roll angle offset from PA to avoid overlap with F star MR: PA change from 148-158 to 140-150 to avoid another star and increase visibility (second one less important).</i>											



<b>Visit</b>	Proposal 14127, 142149+163027 (42), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 153D TO 163 D; ORIENT 333D TO 343 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(42)	142149+163027	RA: 14 21 49.0080 (215.4542000d) Dec: +16 30 27.13 (16.50754d) Equinox: J2000		V=20.77+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.44</i>						

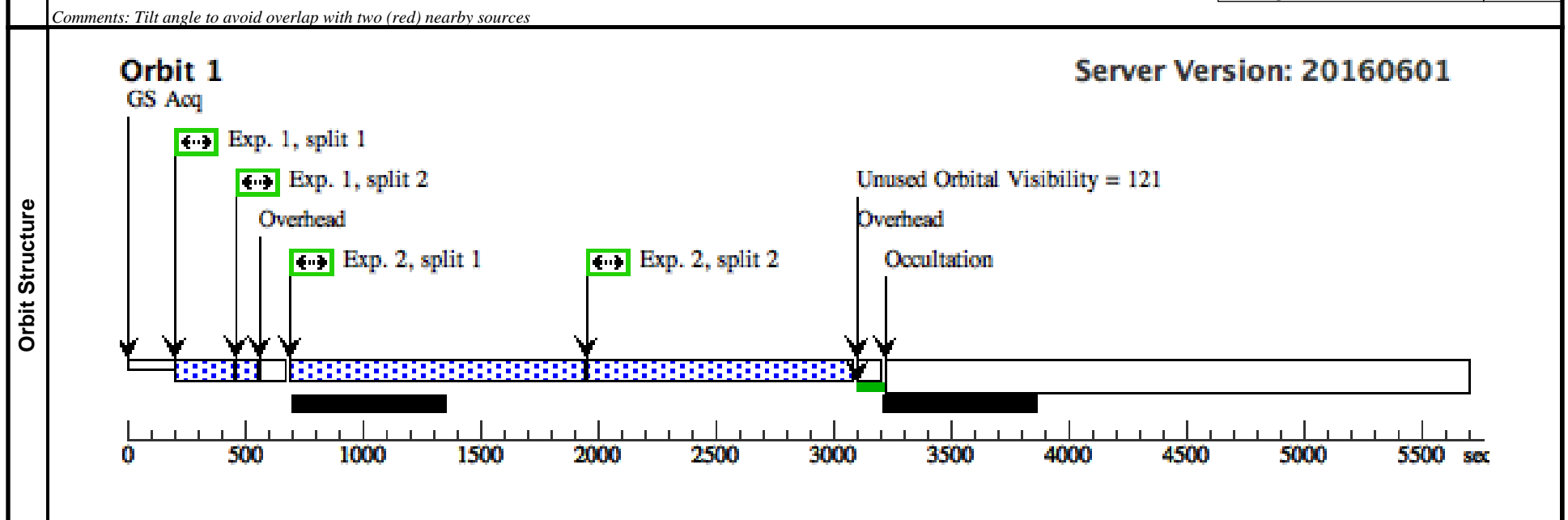
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	142149+163 027_img (718755)	(42) 142149+163027	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	142149+163 027_dis (718789)	(42) 142149+163027	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2268 Secs)	
								[==>1134.0 Secs (Split 1)] [==>1134.0 Secs (Split 2)]	[1]	
<i>Comments: Aligned target G5V star V = 20.3 with low flux below 4000A (WFC3UVIS.sp.718840) MR: PA change from 144-154 and 324-334 to 153-163 and 333-343 to avoid u=23.47 and g=21.82 mag star nearby.</i>										



<b>Visit</b>	Proposal 14127, 101652+222412 (43), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 245D TO 277 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(43)	101652+222412	RA: 10 16 53.9460 (154.2247750d) Dec: +22 24 13.70 (22.40381d) Equinox: J2000		V=20.94+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.29 Added in P2</i>						

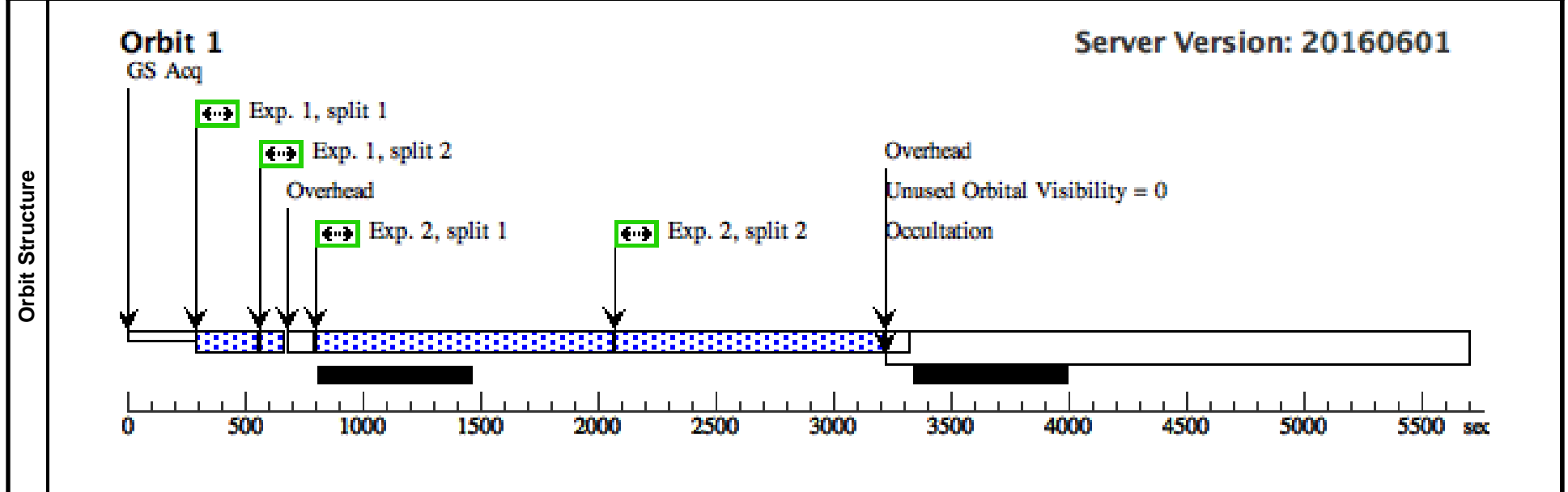
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	101652+222 412_img (718730)	(43) 101652+222412	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O SINGLE		180 Secs (180 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	101652+222 412_dis (718776)	(43) 101652+222412	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2260 Secs (2260 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	<i>Comments: Tilt angle to avoid overlap with two (red) nearby sources</i>									



<b>Visit</b>	Proposal 14127, 163700+263609 (44), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 145D TO 145 D				

<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(44)	163700+263609	RA: 16 37 0.8770 (249.2536542d) Dec: +26 36 13.73 (26.60381d) Equinox: J2000		V=20.71+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.40 Added in P2</i>						

<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	163700+263609_img (718729)	(44) 163700+263609	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-38; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	163700+263609_dis (718775)	(44) 163700+263609	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-38		2450 Secs (2276 Secs) [=>1138.0 Secs (Split 1)] [=>1138.0 Secs (Split 2)]	[1]
	<i>Comments: Specific PA needed for overlap MR: v-offset to -38 from -50 to avoid bright star</i>									

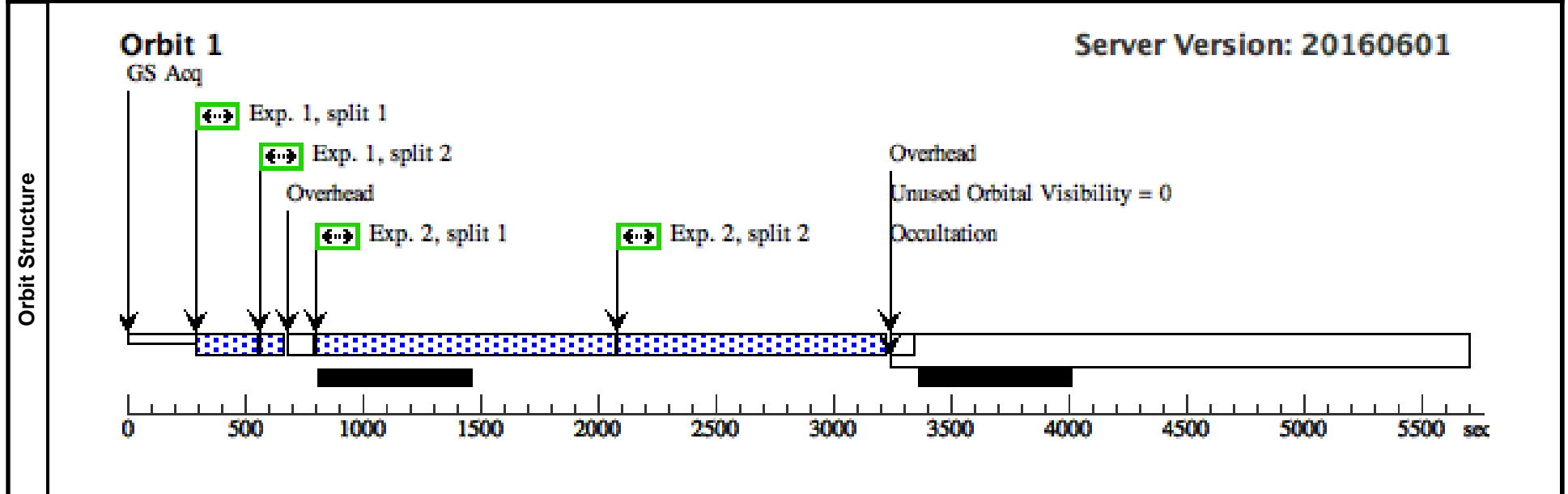


<b>Visit</b>	Proposal 14127, 011707+315341 (45), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 41D TO 45 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(45)	011707+315341	RA: 01 17 8.3870 (19.2849458d) Dec: +31 53 38.67 (31.89408d) Equinox: J2000		V=20.77+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.06</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	011707+315 341_img (718755)	(45) 011707+315341	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	011707+315 341_dis (718790)	(45) 011707+315341	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2292 Secs) [=>1146.0 Secs (Split 1)] [=>1146.0 Secs (Split 2)]	[1]

*Comments: MR: PA change to avoid nearby galaxy u=24.37 g=21.52. OK that stars ruin the -1 trace. From 63 to 42-45. Would do smaller PA, but no visibility.*

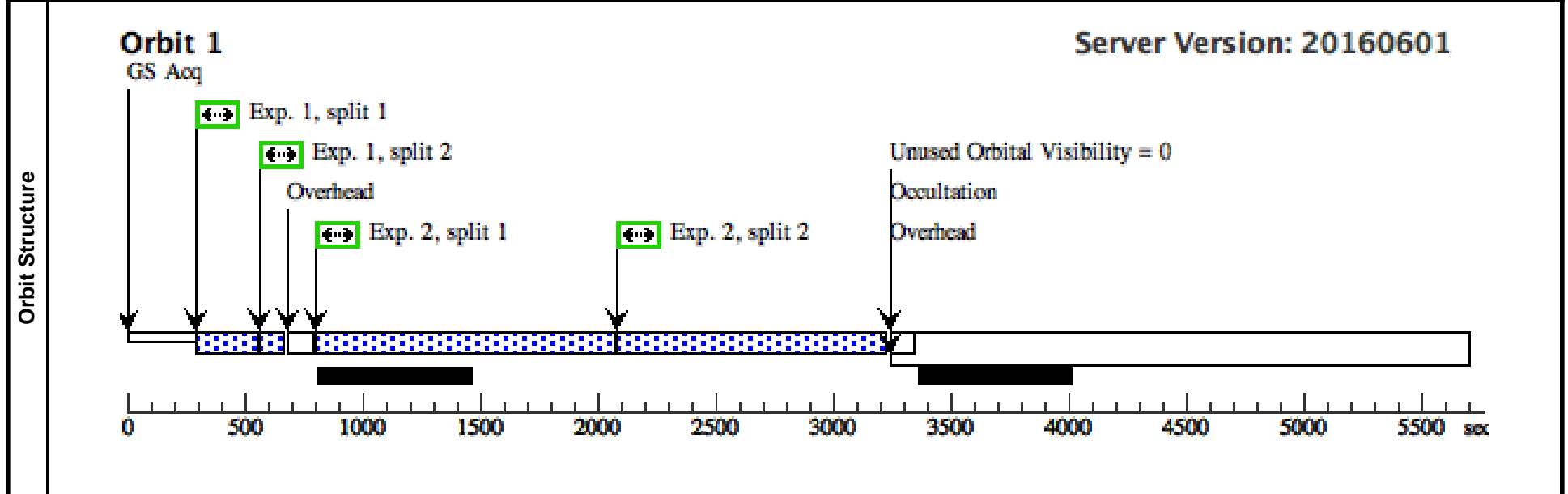


<b>Visit</b>	Proposal 14127, 103425+330635 (46), completed					Fri Jul 29 17:07:19 GMT 2016
	Diagnostic Status: No Diagnostics					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 146D TO 156 D; ORIENT 326D TO 336 D					

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(46)	103425+330635	RA: 10 34 24.7680 (158.6032000d) Dec: +33 06 24.15 (33.10671d) Equinox: J2000		V=20.74+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.37</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	103425+330 635_img (718730)	(46) 103425+330635	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	103425+330 635_dis	(46) 103425+330635	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2292 Secs)	
									[==>1146.0 Secs (Split 1)] [==>1146.0 Secs (Split 2)]	[1]

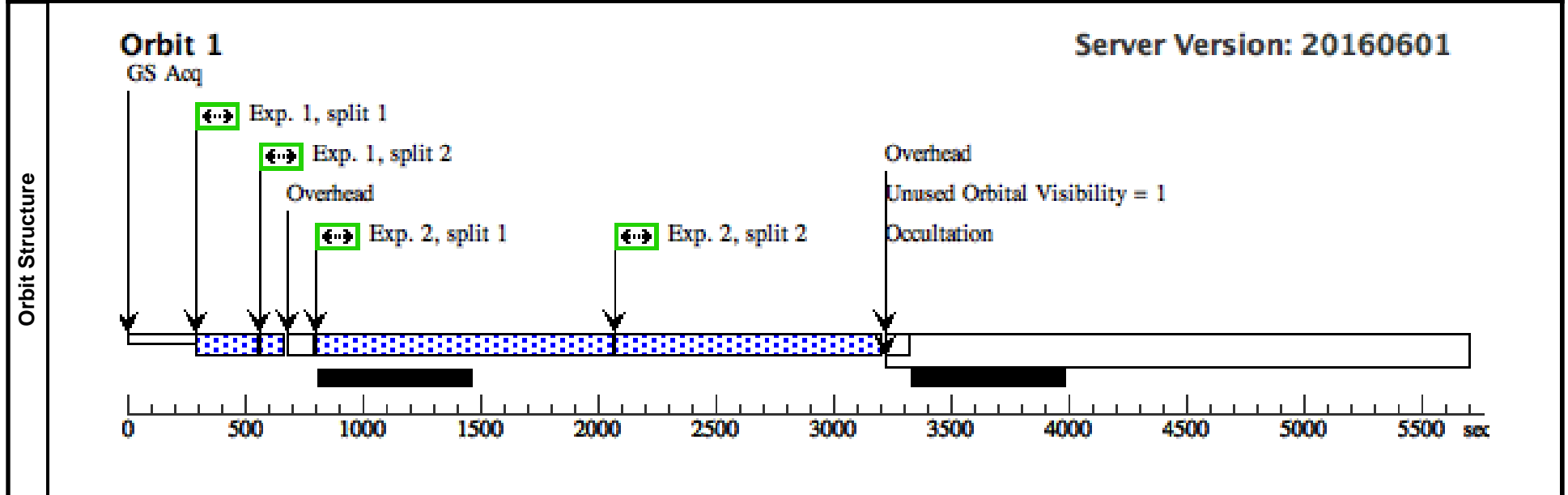
*Comments: Overlapping objects are very red (u > 25)*



<b>Visit</b>	Proposal 14127, 144320+200825 (47), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 118D TO 128 D; ORIENT 298D TO 308 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(47)	144320+200825	RA: 14 43 21.0400 (220.8376667d) Dec: +20 08 13.82 (20.13717d) Equinox: J2000		V=20.80+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.35</i>						

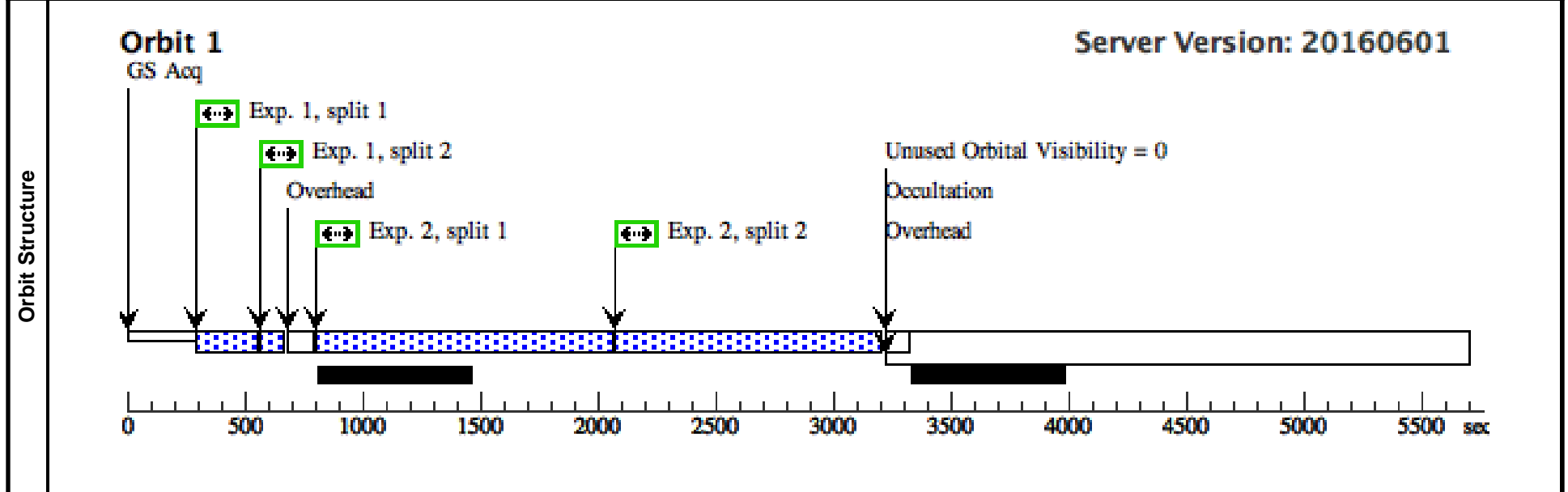
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	144320+200 825_img (718755)	(47) 144320+200825	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)		
										[=>(Split 1)]	[1]
										[=>(Split 2)]	
2	144320+200 825_dis (718790)	(47) 144320+200825	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50			2300 Secs (2268 Secs)		
									[=>1134.0 Secs (Split 1)]	[1]	
									[=>1134.0 Secs (Split 2)]		



<b>Visit</b>	Proposal 14127, 093747+150928 (48), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 130D TO 134 D; ORIENT 310D TO 314 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(48)	093747+150928	RA: 09 37 47.2490 (144.4468708d) Dec: +15 09 28.02 (15.15778d) Equinox: J2000		V=20.05+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.93</i>						

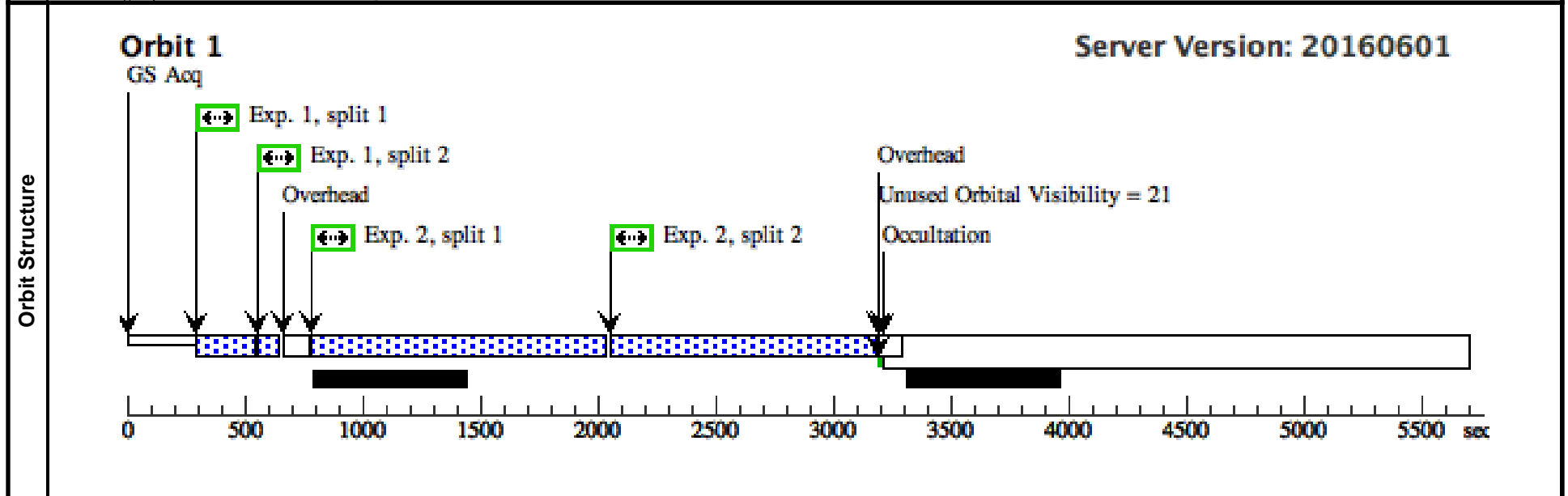
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	093747+150 928_img (718742)	(48) 093747+150928	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	093747+150 928_dis (718788)	(48) 093747+150928	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2268 Secs) [=>1134.0 Secs (Split 1)] [=>1134.0 Secs (Split 2)]	[1]
	<i>Comments: MR: PA change to avoid u=22.52 g=22.37 galaxy and u=22.78 g=22.32. galaxy. First galaxy between two QSOs otherwise can't avoid other galaxy (Would prefer 148-158, but no visibility). From 138-148 and 318-328 to 130-134 and 310-314.</i>									



<b>Visit</b>	Proposal 14127, 221427+132657 (49), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 143D TO 153 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(49)	221427+132657	RA: 22 14 26.7930 (333.6116375d) Dec: +13 26 52.34 (13.44787d) Equinox: J2000		V=20.60+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.37</i>						
<i>Added in P2</i>						

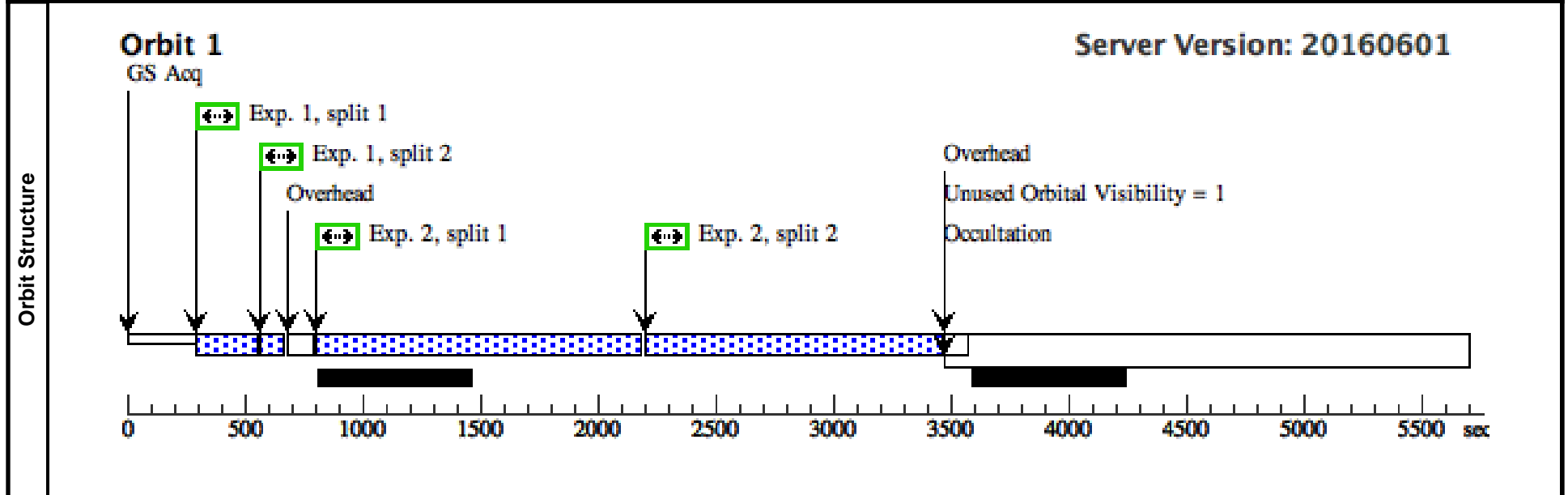
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	221427+132 657_img (718729)	(49) 221427+132657	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		180 Secs (180 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	221427+132 657_dis (718775)	(49) 221427+132657	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2264 Secs)	
								[==>1132.0 Secs (Split 1)] [==>1132.0 Secs (Split 2)]	[1]	
<i>Comments: Do not pack orbit for visibility</i>										
<i>MR: PA change to avoid u=22.4, g=21.86 galaxy. From PA of 163-175 to PA 143-153</i>										
<i>MR: Changed pack a little with decent visibility.</i>										



<b>Visit</b>	Proposal 14127, 125421+610421 (50), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 89D TO 99 D; ORIENT 269D TO 279 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(50)	125421+610421	RA: 12 54 20.5180 (193.5854917d) Dec: +61 04 36.01 (61.07667d) Equinox: J2000		V=19.60+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.10 Added in P2</i>						

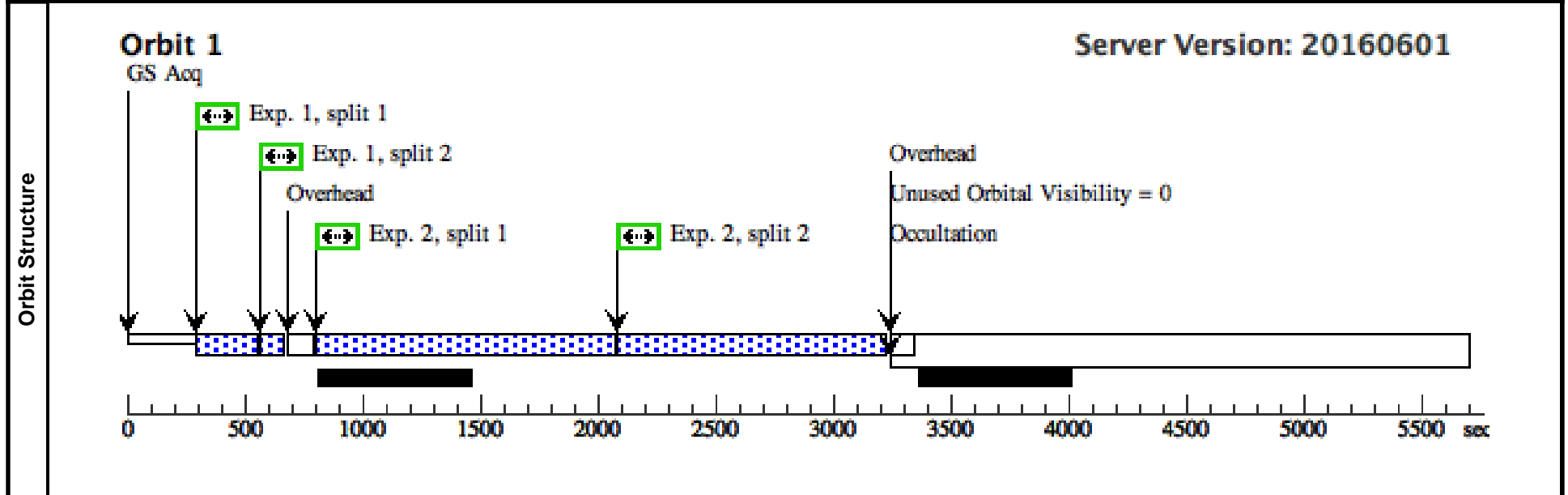
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	125421+610 421_img (718727)	(50) 125421+610421	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs) [=>(Split 1)] [=>(Split 2)]	[1]
	2	125421+610 421_dis (718773)	(50) 125421+610421	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2700 Secs (2524 Secs) [=>1262.0 Secs (Split 1)] [=>1262.0 Secs (Split 2)]	[1]



<b>Visit</b>	Proposal 14127, 154938+313646 (51), completed					Fri Jul 29 17:07:19 GMT 2016
	Diagnostic Status: No Diagnostics					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 108D TO 118 D; ORIENT 288D TO 298 D					

<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(51)	154938+313646	RA: 15 49 38.1720 (237.4090500d) Dec: +31 36 46.89 (31.61303d) Equinox: J2000		V=20.12+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.29</i>						

<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	154938+313 646_img (718752)	(51) 154938+313646	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[=>(Split 1)] [=>(Split 2)]	[1]
	2	154938+313 646_dis (718788)	(51) 154938+313646	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2300 Secs (2292 Secs)	
								[=>1146.0 Secs (Split 1)] [=>1146.0 Secs (Split 2)]	[1]	



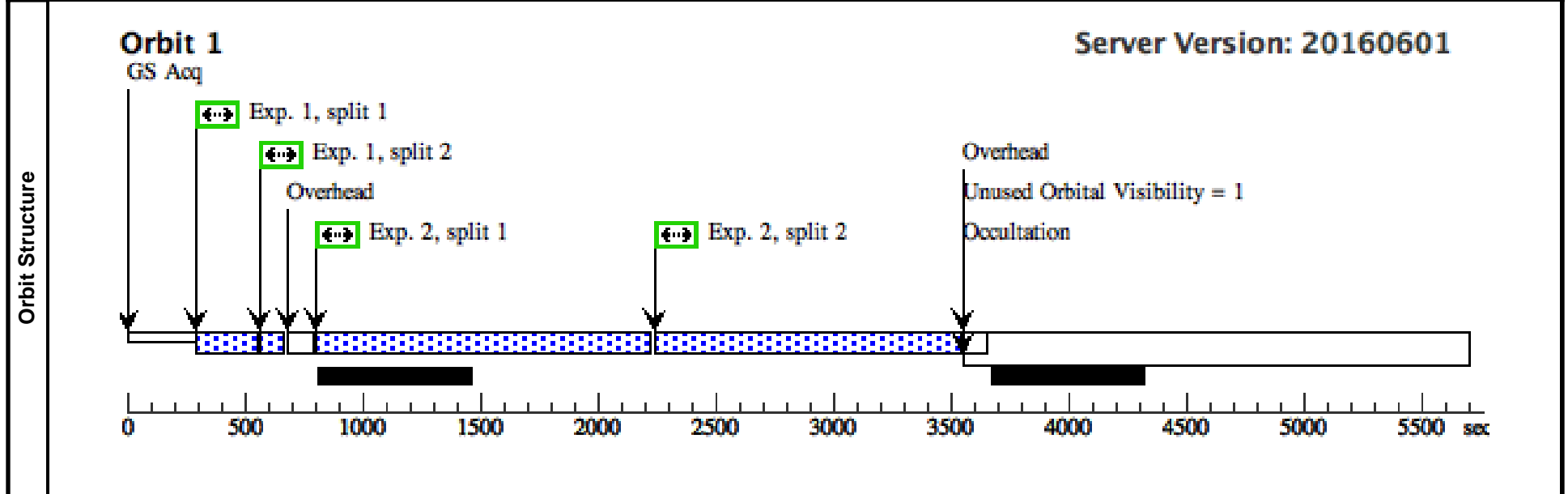
Proposal 14127 - 111641+650717 (52) - First Measurement of the Small Scale Structure of Circumgalactic Gas via Grism Spectra of ...

<b>Visit</b>	Proposal 14127, 111641+650717 (52), completed					Fri Jul 29 17:07:19 GMT 2016
	Diagnostic Status: No Diagnostics					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 179D TO 189 D					

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(52)	111641+650717	RA: 11 16 41.7800 (169.1740833d) Dec: +65 07 17.69 (65.12158d) Equinox: J2000		V=21.09+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.57 Added in P2</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config, Mode, Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	111641+650 717_img (718758)	(52) 111641+650717	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-70		200 Secs (200 Secs)		
										[=>(Split 1)]	[1]
										[=>(Split 2)]	
2	111641+650 717_dis	(52) 111641+650717	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-70			2700 Secs (2602 Secs)		
									[=>1301.0 Secs (Split 1)]	[1]	
									[=>1301.0 Secs (Split 2)]		

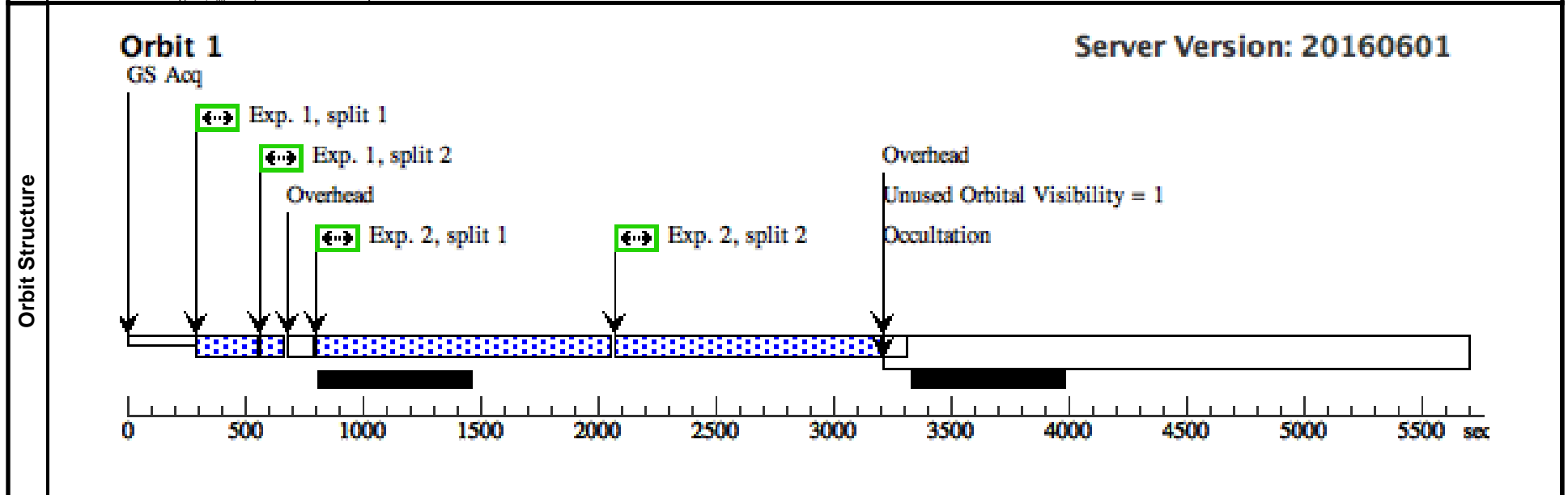
*Comments: MR: y-offset to avoid bright star, from -50 to -70*



<b>Visit</b>	<b>Proposal 14127, 140052+123248 (53), scheduling</b>				
	<b>Diagnostic Status: No Diagnostics</b>				
	Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 271D TO 271 D				
	<i>Comments: Removed from "on hold" on Aug 17 2015.</i>				

<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(53)	140052+123248	RA: 14 00 52.5560 (210.2189833d) Dec: +12 32 48.03 (12.54668d) Equinox: J2000		V=20.51+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.36</i>						

<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	140052+123 248_img (718729)	(53) 140052+123248	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50; GS ACQ SCENARI O BASE1B3		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	140052+123 248_dis (718775)	(53) 140052+123248	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2264 Secs)	
								[==>1132.0 Secs (Split 1)] [==>1132.0 Secs (Split 2)]	[1]	
<i>Comments: Fix angle (off PA) to avoid overlap</i>										

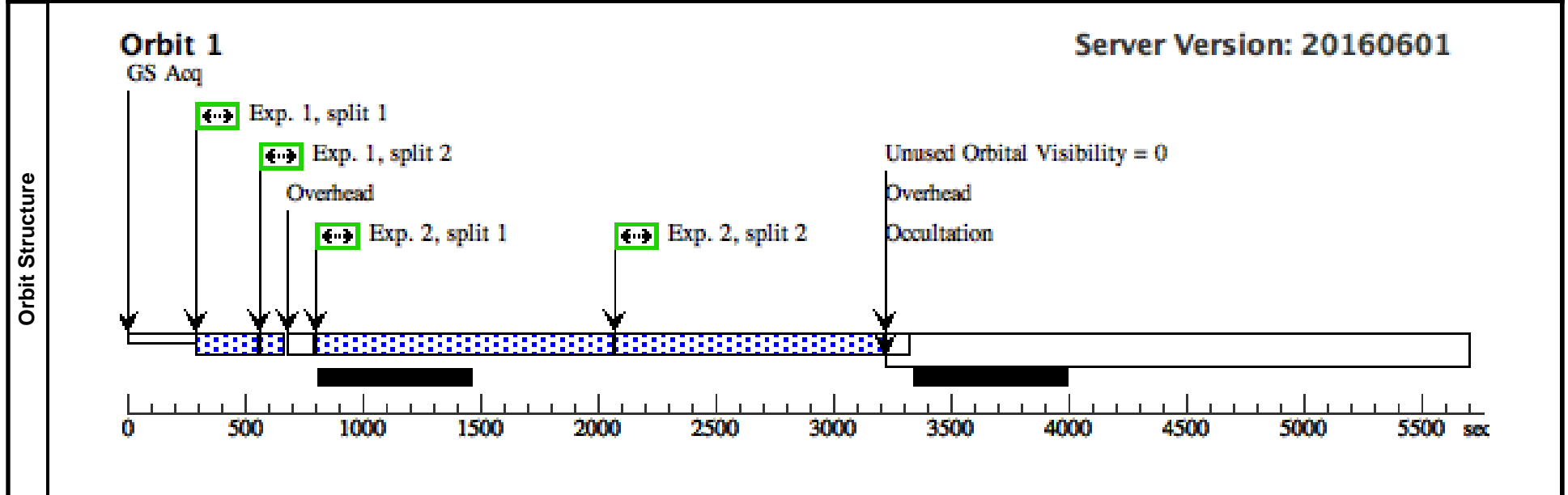


<b>Visit</b>	Proposal 14127, 171946+254941 (54), scheduling				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 275D TO 280 D; ORIENT 95D TO 100 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(54)	171946+254941	RA: 17 19 46.6630 (259.9444292d) Dec: +25 49 41.19 (25.82811d) Equinox: J2000		V=20.05+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 19.87</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	171946+254 941_img (718728)	(54) 171946+254941	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	171946+254 941_dis (718774)	(54) 171946+254941	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2450 Secs (2276 Secs)	
								[==>1138.0 Secs (Split 1)] [==>1138.0 Secs (Split 2)]	[1]	

*Comments: Observed off of PA to avoid bright F star*



<b>Visit</b>	Proposal 14127, 104533+404121 (55), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: ORIENT 118D TO 128 D; ORIENT 298D TO 308 D				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(55)	104533+404121	RA: 10 45 33.3180 (161.3888250d) Dec: +40 41 38.01 (40.69389d) Equinox: J2000		V=20.31+/-0.01	Reference Frame: ICRS
<i>Comments: Quasar pair: second object g = 20.25</i>						

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	104533+404121_img (718737)	(55) 104533+404121	WFC3/UVIS, ACCUM, G280-REF	F300X	FLASH=12; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs)	
									[==>(Split 1)] [==>(Split 2)]	[1]
	2	104533+404121_dis (718782)	(55) 104533+404121	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=2	POS TARG null,-50		2500 Secs (2354 Secs)	
								[==>1177.0 Secs (Split 1)] [==>1177.0 Secs (Split 2)]	[1]	

