



15655 - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and quiet AGN feedback with ACS+SBC

Cycle: 26, 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) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:28.0	yes
02	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:30.0	yes
03	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:32.0	yes
04	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:33.0	yes
05	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:35.0	yes
06	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:36.0	yes
07	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:37.0	yes
57	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:38.0	yes
08	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:39.0	yes
58	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:40.0	yes
09	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:41.0	yes
10	(1) J0833+1000	ACS/SBC	2	26-Mar-2020 18:00:42.0	yes
11	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:44.0	yes
12	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:45.0	yes
13	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:47.0	yes
14	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:48.0	yes
15	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:49.0	yes
16	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:50.0	yes
17	(2) J0113+0106	ACS/SBC	1	26-Mar-2020 18:00:51.0	yes
18	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:52.0	yes
19	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:53.0	yes
20	(2) J0113+0106	ACS/SBC	2	26-Mar-2020 18:00:54.0	yes

43 Total Orbits Used

ABSTRACT

Energy and momentum released by AGN is thought to couple to the interstellar medium of the host and regulate star-formation in massive galaxies. AGN feedback mechanisms are often divided into two distinct physical modes: radio-loud and radio-quiet. Direct evidence of AGN feedback from radio-loud AGN has long been established. Recent observations of spatially and kinematically extended [OIII] emission around radio-quiet AGN demonstrate that the radio-quiet systems that dominate the quasar population can provide feedback as well. However, the morphology, multiphase nature, and mass of AGN outflows remain largely unconstrained. An exciting new technique to produce synthetic narrow-band images of HI Ly-alpha and OVI emission with the ACS+SBC for sources at $z \sim 0.26$ has been successfully demonstrated for a starbursting galaxy (Hayes et al., 2016). We propose to obtain deep, high resolution narrow-band Ly-alpha and OVI images of two luminous, obscured AGN at $z \sim 0.26$ with recently discovered extended [OIII] outflows, one of which is radio-loud and one which is radio-quiet. The unique combination of redshift, known outflows, and dust obscuration acting as a natural coronagraph for these AGN provide a new opportunity to study AGN feedback in diffuse and coronal gas. The proposed UV images together with multi-wavelength data will measure the ionization state/mechanisms and masses of outflows from the two AGN feedback modes in a completely new way.

OBSERVING DESCRIPTION

This proposal aims to obtain the first high resolution imaging of diffuse and coronal gas through Ly α , and OVI emission from recently discovered, spatially resolved outflows driven by one radio-quiet and one radio-loud lobe dominated obscured AGN. These observations will leverage the UV and high-resolution capability of the ACS to provide an unprecedented, multiphase view of AGN feedback. Our observing strategy is based on those of successful Cycle 22, 23, & 25 programs to image starbursting galaxies and a galaxy cluster in Ly α and OVI with the same synthetic narrow-band technique (PID's 13656, 14079, 15298). We will target one radio-loud lobe-dominated quasar J0113+0106, and one radio-quiet quasar, J0833+1000, both at $z \sim 0.26$ which enables synthetic narrow-band imaging of Ly α and OVI.

To obtain images in Ly α , we will observe the Ly α on-line filter, F150LP and off-line filter, F165LP. To obtain OVI images, we will observe the OVI on-line filter, F125LP, and the off-line filter, F140LP. To estimate the adjacent continuum flux levels, we will also subtract the F140LP and F150LP images. For F125LP, F140LP, and F150LP the number of required orbits is set by the need to detect low surface brightness OVI emission and continuum emission to similar limits. For F165LP, the number of required orbits is lower because the expected surface brightness in Ly α are higher than those of OVI.

Proposal 15655 (STScI Edit Number: 0, Created: Thursday, March 26, 2020 at 5:00:54 PM Eastern Standard Time) - Overview

To obtain OVI images, we will observe the OVI on-line filter, F125LP, and the off-line filter, F140LP. The adjacent continuum will be measured with the F140LP and F150LP filters. While the F125LP bandpass does not include geocoronal HI Ly α , it does include geocoronal O I emission at 1304 Ang. To minimize the backgrounds in the F125LP observations due to airglow, we will therefore observe F125LP in the ~25 minute portion of each orbit in orbital shadow which reduces OI 1304 emission by a factor of ~150 to negligible surface brightness (five times lower than the expected OVI emission). Consequently, the dominant source of background will be Ly α associated with the outflow. Adopting the OVI to Ly α line ratio observed in a COS spectrum of an extended AGN outflow, we estimate the Ly α background count rate in the OVI on-band image. The Ly α emission will also contribute noise to the OVI off-band image in F140LP and the F150LP image required for adjacent continuum estimate.

Adopting a 2 orbit visit and standard dither strategy with the F125LP carried out while in shadow and using the remainder of the orbits for the other SBC filters, the desired synthetic narrow-band images can be obtained in a total of 20 orbits for J0833+1000 assuming standard overheads. Though it has higher [OIII] surface brightness, we will obtain an identical set of observations for J0113+0106 in order to facilitate an unbiased comparison between the two AGN outflows using images with similar surface brightness limits. GO-14749 (PI: M. Schirmer) obtained 2200 sec of exposure in F140LP and 600 sec of exposure in F165LP for J0113+0106 as well as a dispersed, prism exposure. These integration times are not sufficient for our required depths because they were not aimed at detection of OVI or such faint Ly α . We will include these archival ACS+SBC images in our analysis though which reduces the orbit requirement for J0113+0106 by one orbit.

In all visits, we adopt the 4- or 2-point dither patterns from GO-15298 which will enable artifact rejection, sub-pixel sampling, and mitigate flat-fielding errors.

As specified in the Phase I proposal, we request that the visits be scheduled so that the SBC has been switched off for at least 24 hours prior to reduce the dark current. For the same reason, we request that the orbits are scheduled in visits of 2 orbits or less to maintain low dark current.

When using the BOT with the GALEX catalog, we find no bright object warnings for J0113+0106 which is covered by GALEX. J0833+1005 is not covered by GALEX and there are two stars of $u=17.16$ and 18.66 in the field of J0833+1000 that flag the BOT. Based on GAIA and SDSS data, these are non-variable and have effective temperatures of 5000 K. Consequently the flux levels expected in the ACS+SBC images from these stars are minimal. We verified that they will fall below the bright limits with the ETC assuming the SED of the Kurucz stellar model with closest matching temperature. The information for the two stars are below:

GSC object id	ra	dec	SDSS dr14 id	SDSS_u	GAIA dr2 ID	GAIA_Bp	GAIA_Rp	GAIA_Teff
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Proposal 15655 (STScI Edit Number: 0, Created: Thursday, March 26, 2020 at 5:00:54 PM Eastern Standard Time) - Overview

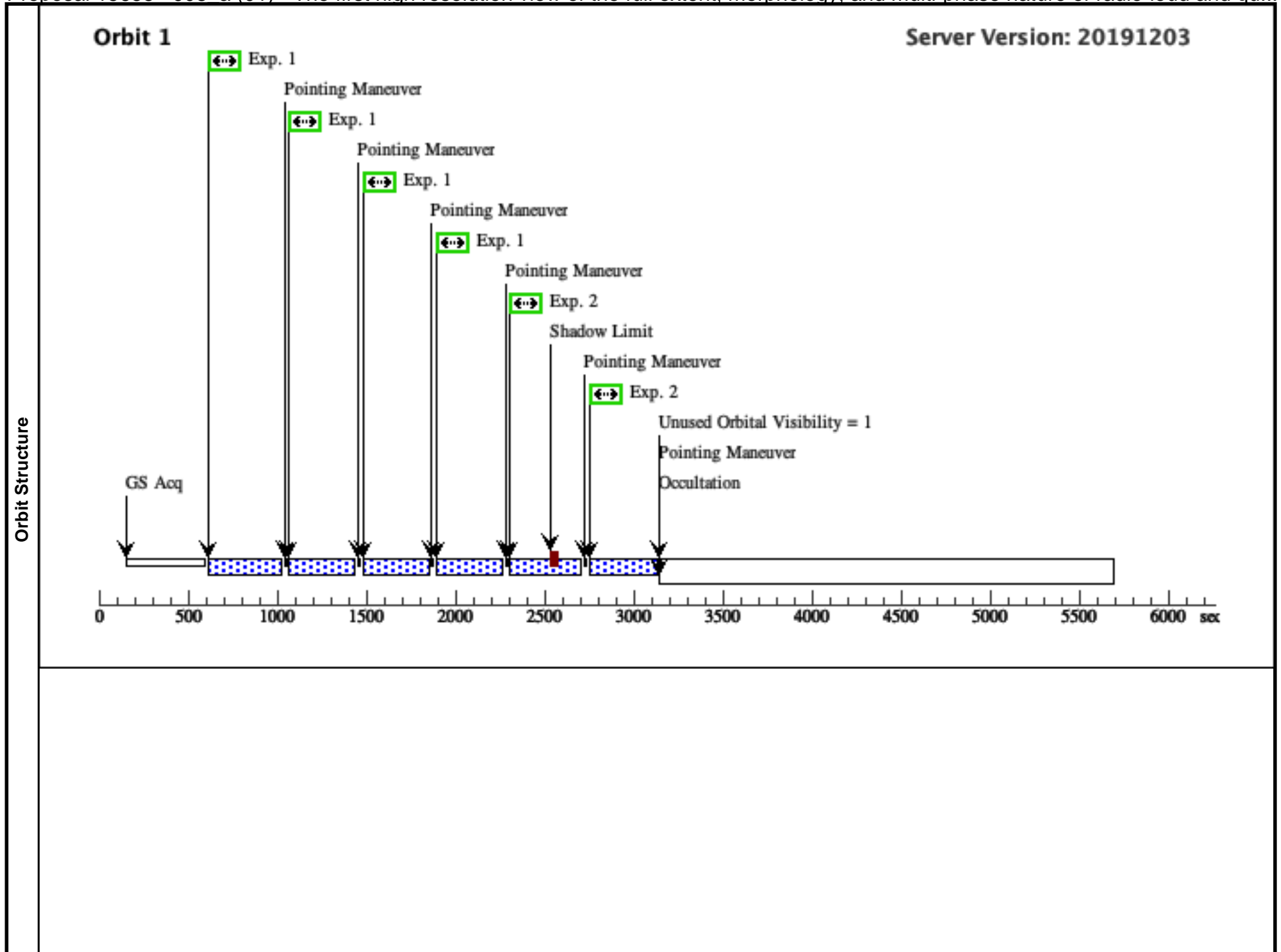
expected count rate (e/s)

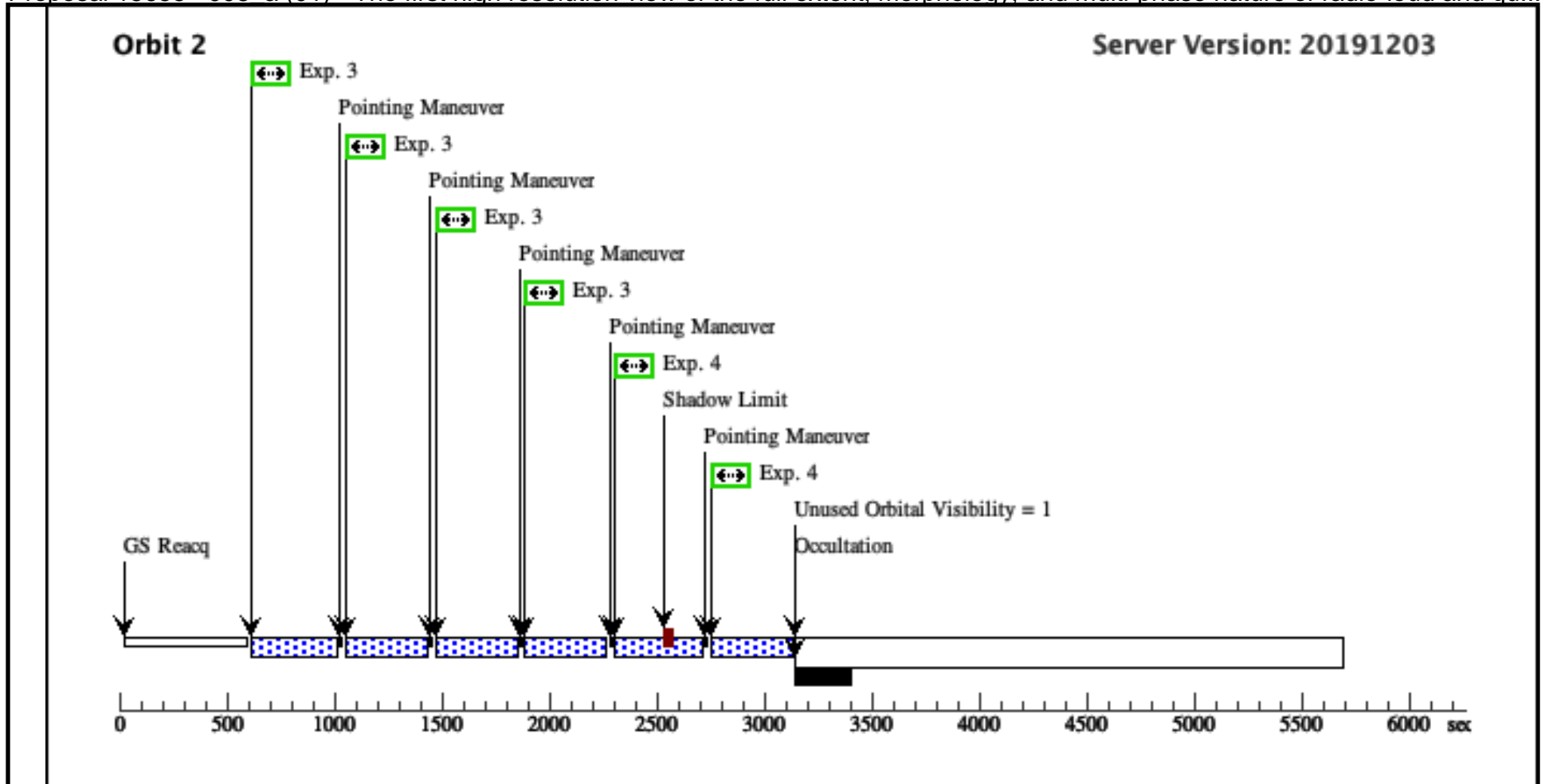
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N8WX004265	08:33:14.7	+10:01:09.10	1237671124294565983	18.66	600001163111634560	16.6	15.5	5000	0.01

Proposal 15655 - J08_a (01) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:54 GMT 2020

Visit	Proposal 15655, J08_a (01), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F140LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false							(2), (4)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J08_a (01) (1)	348 Secs (1392 Secs)	
									[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 2-2 in J08_a (01) (2)	357 Secs (714 Secs)	
									[=>(Pattern 1)] [=>(Pattern 2)]	[1]
3	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J08_a (01) (1)	352 Secs (1408 Secs)		
								[=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]	
4	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 4-4 in J08_a (01) (2)	358 Secs (716 Secs)		
								[=>(Pattern 1)] [=>(Pattern 2)]	[2]	

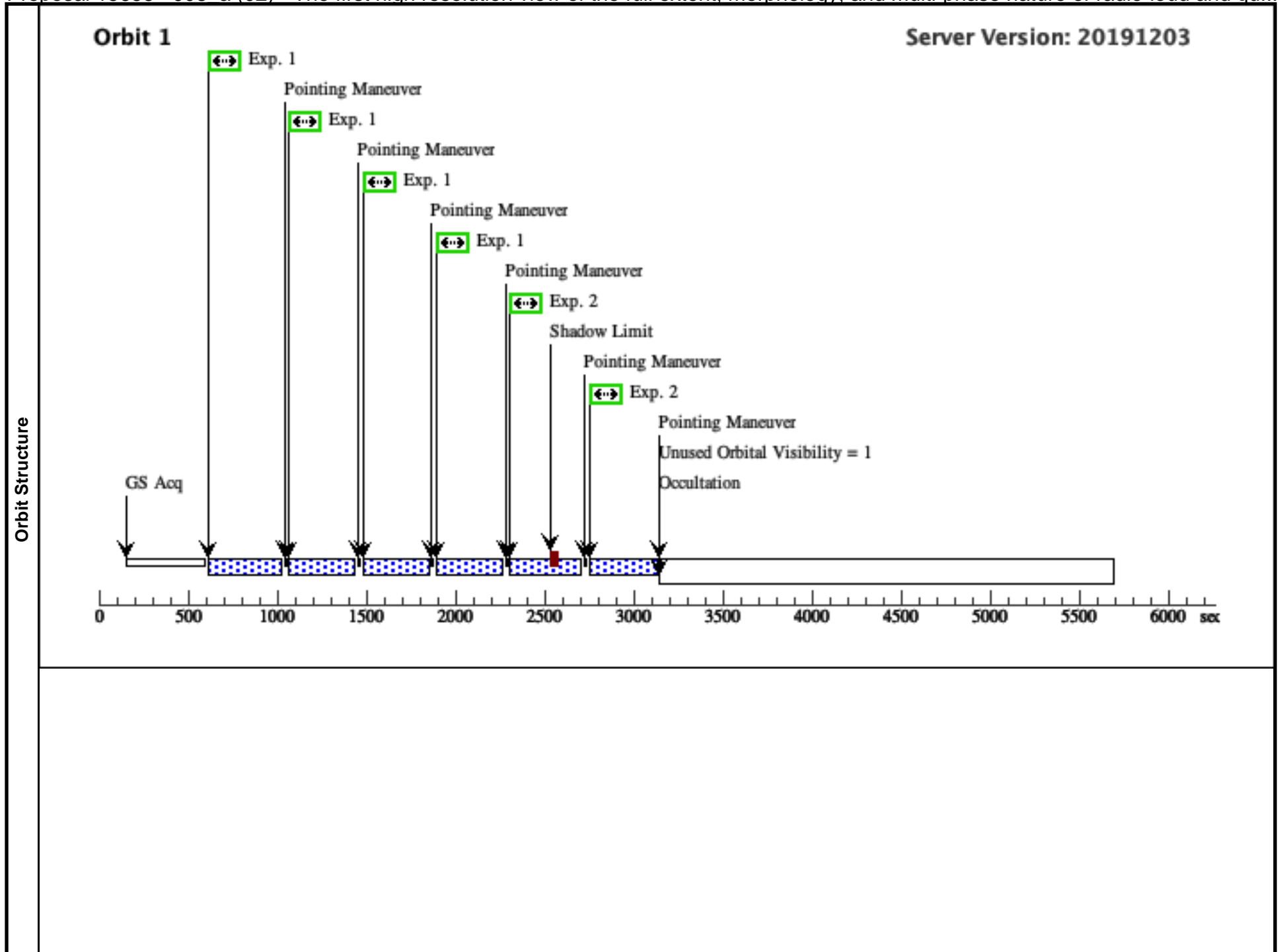


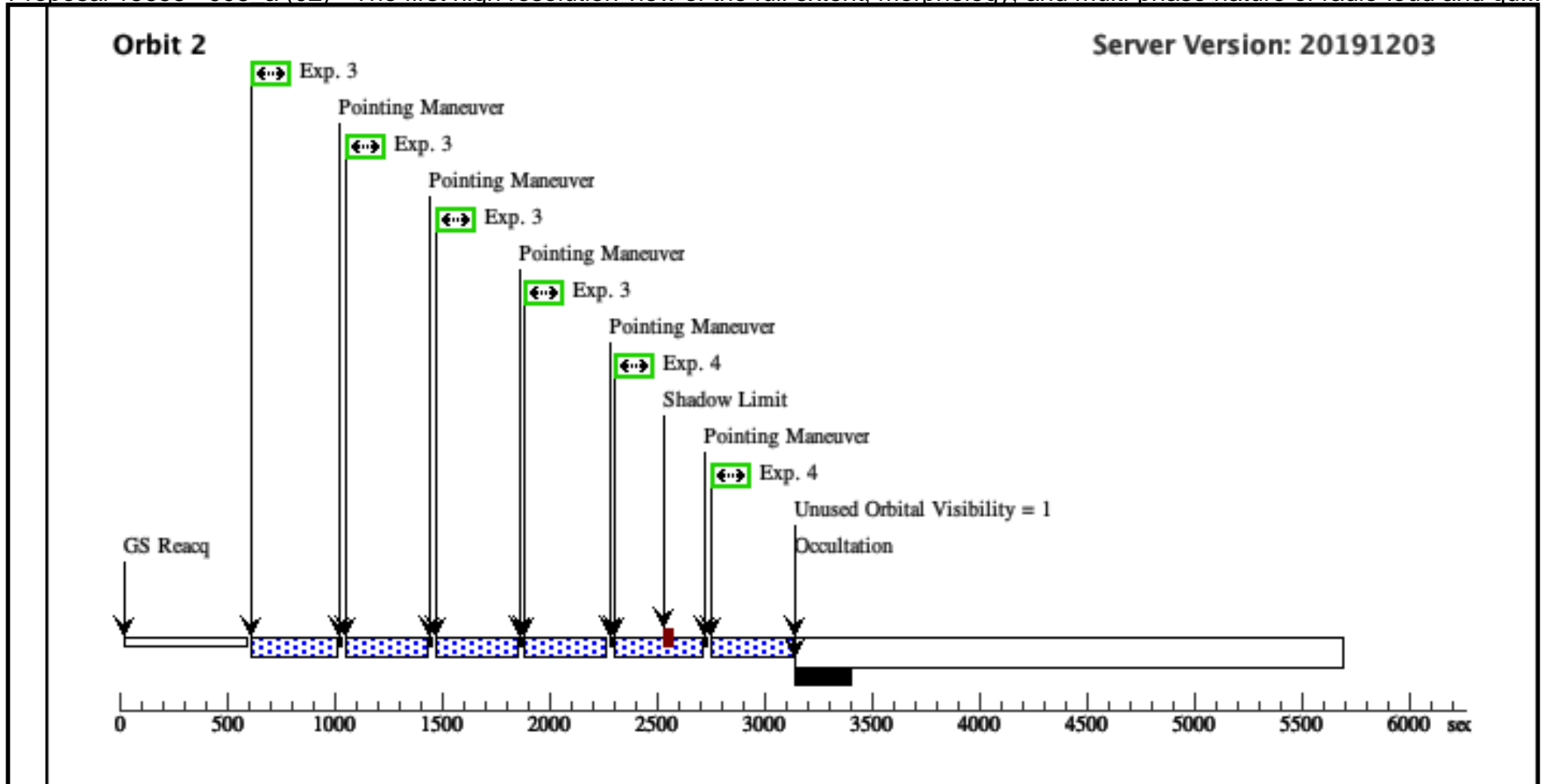


Proposal 15655 - J08_a (02) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:55 GMT 2020

Visit	Proposal 15655, J08_a (02), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F140LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false							(2), (4)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J08_a (02) (1)	348 Secs (1392 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 2-2 in J08_a (02) (2)	357 Secs (714 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J08_a (02) (1)	352 Secs (1408 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]
	4	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 4-4 in J08_a (02) (2)	358 Secs (716 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[2]

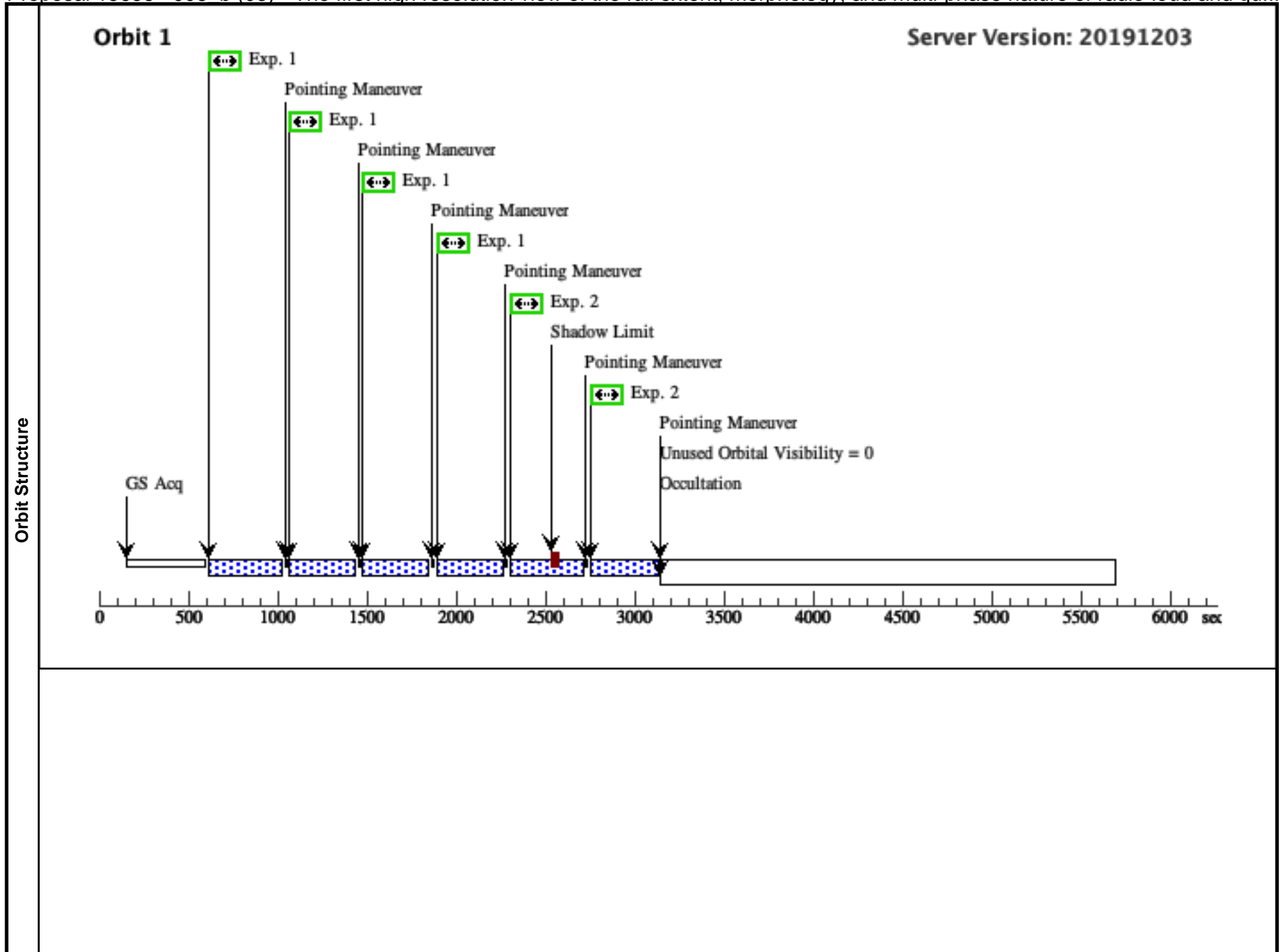


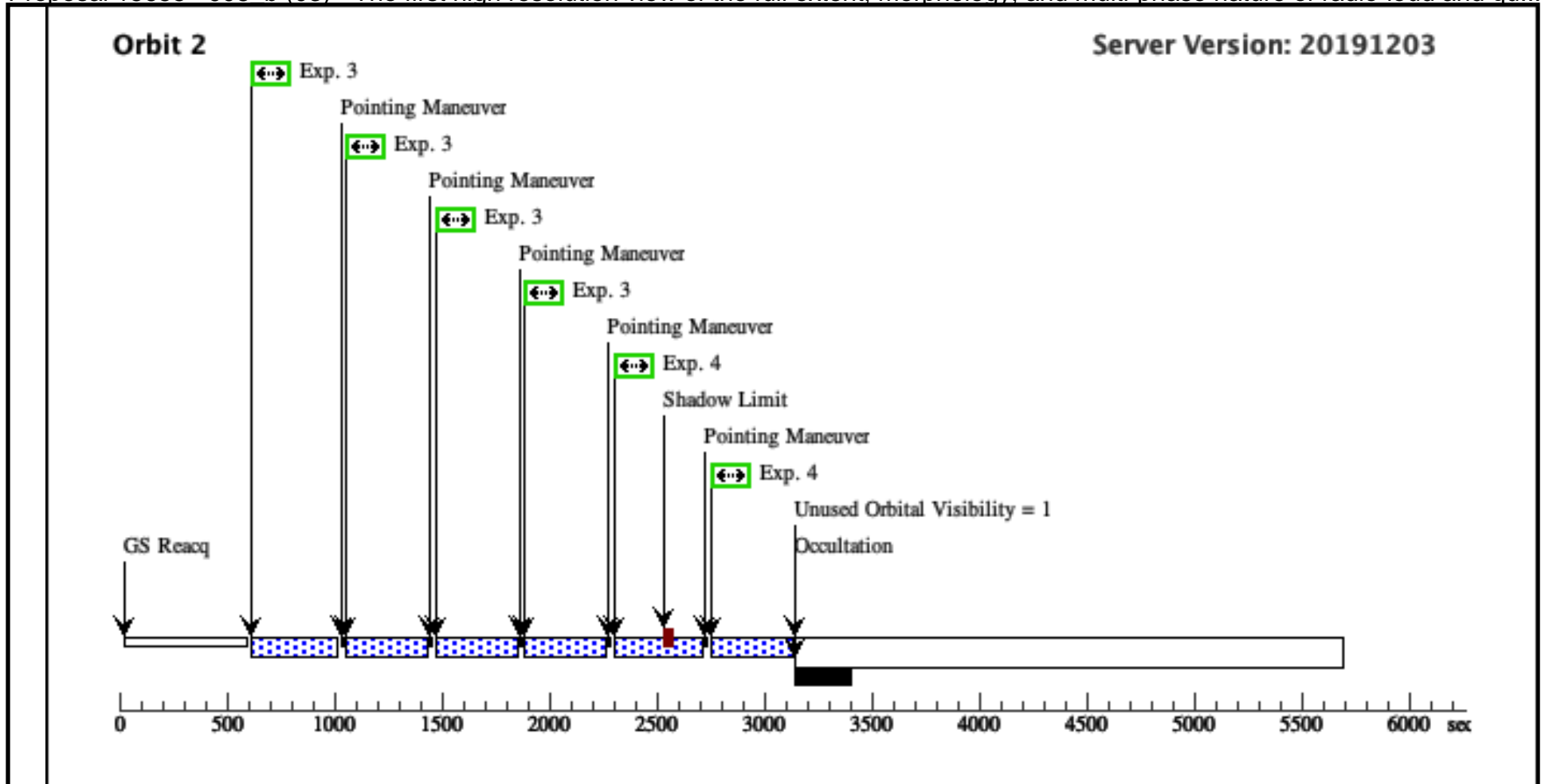


Proposal 15655 - J08_b (03) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:55 GMT 2020

Visit	Proposal 15655, J08_b (03), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F150LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false							(2), (4)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J08_b (03) (1)	347 Secs (1388 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 2-2 in J08_b (03) (2)	357 Secs (714 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J08_b (03) (1)	350 Secs (1400 Secs)	
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]	
	4	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 4-4 in J08_b (03) (2)	357 Secs (714 Secs)	
								[==>(Pattern 1)] [==>(Pattern 2)]	[2]	

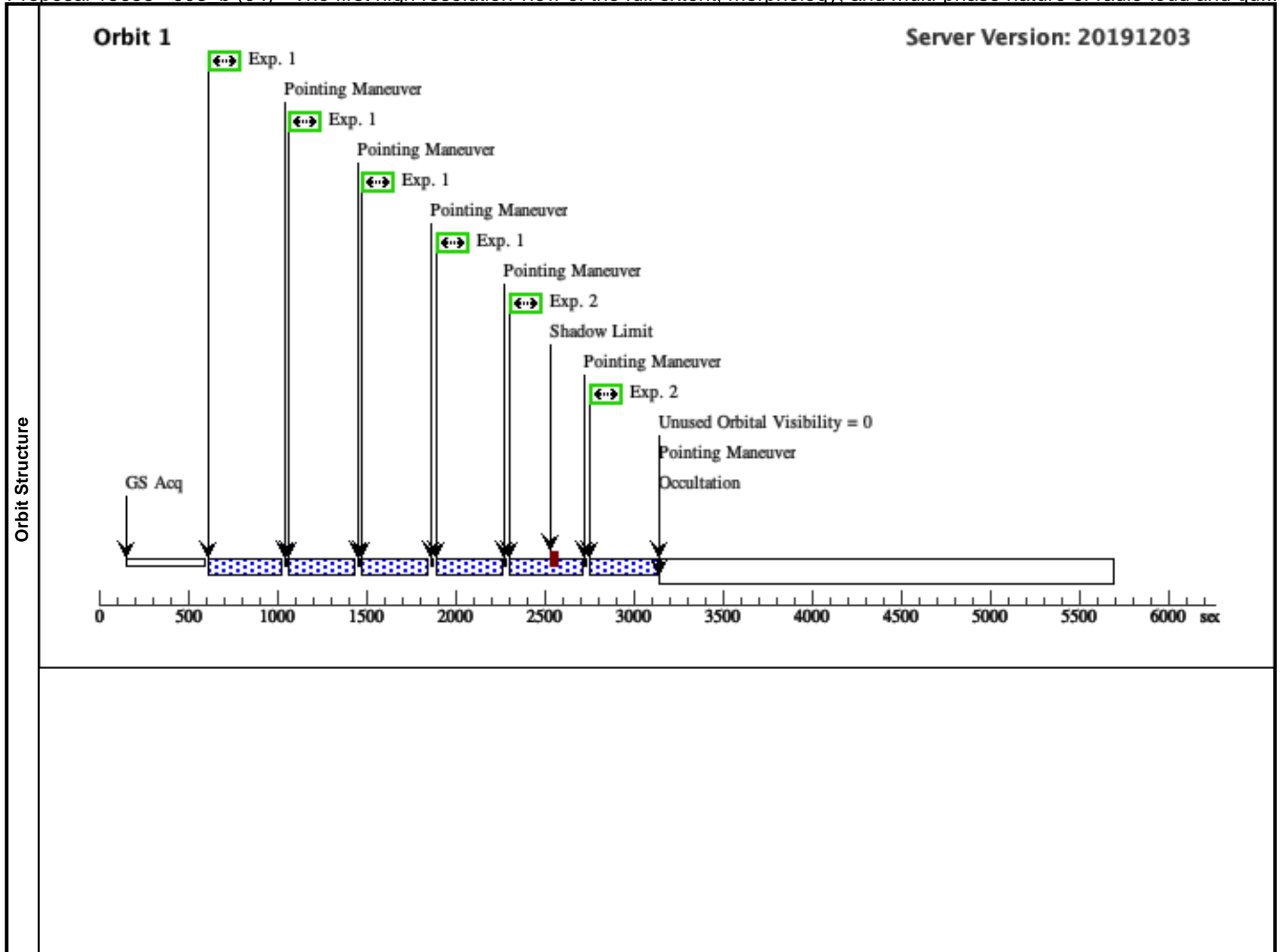


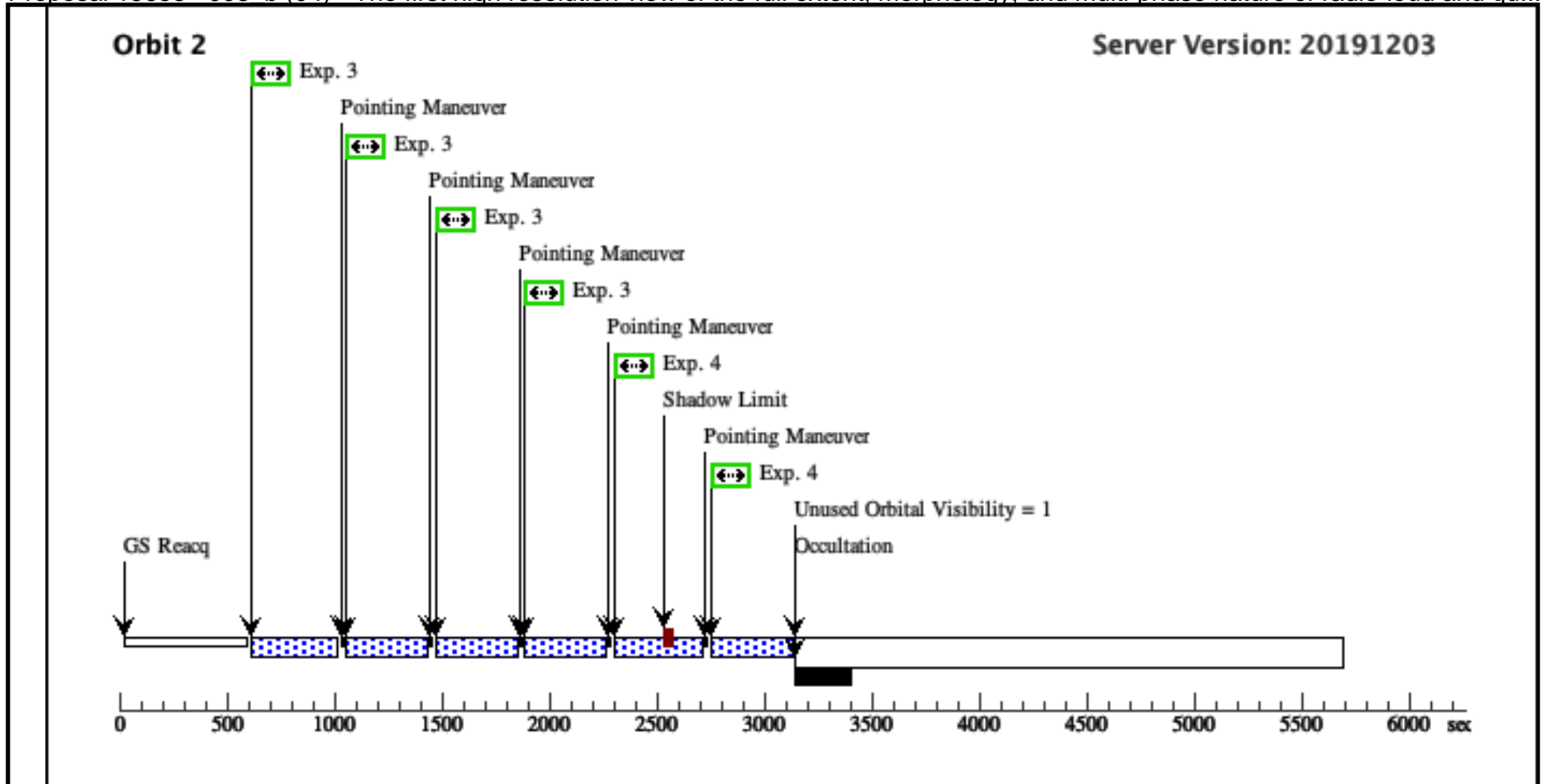


Proposal 15655 - J08_b (04) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:55 GMT 2020

Visit	Proposal 15655, J08_b (04), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F150LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
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	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false							(2), (4)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J08_b (04) (1)	347 Secs (1388 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 2-2 in J08_b (04) (2)	357 Secs (714 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J08_b (04) (1)	350 Secs (1400 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]
	4	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 4-4 in J08_b (04) (2)	357 Secs (714 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[2]





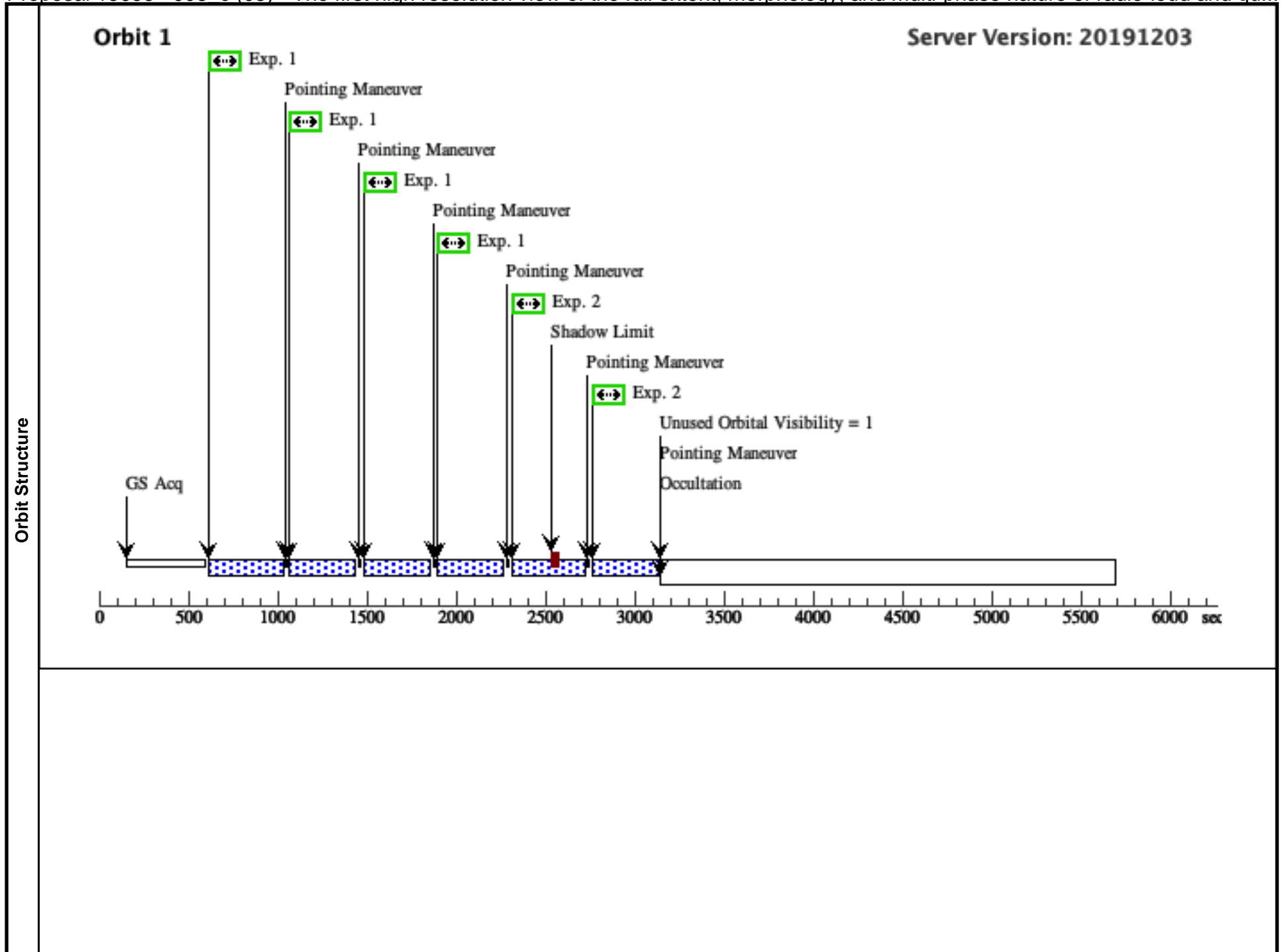
Proposal 15655 - J08_c (05) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

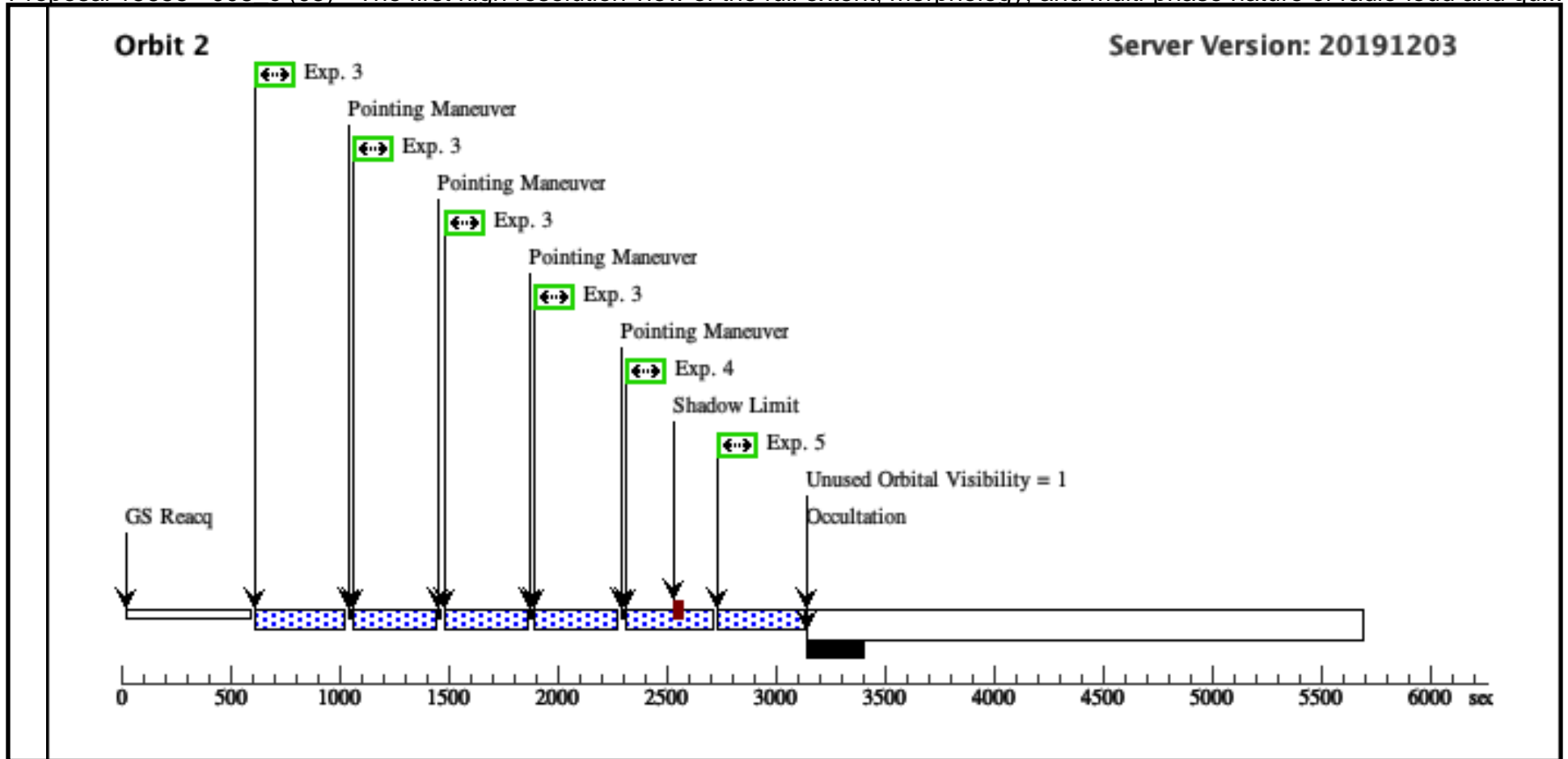
Thu Mar 26 22:00:55 GMT 2020

Visit	Proposal 15655, J08_c (05), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F140LP, F150LP, F165LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
(1)		Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false		(1), (3)	
(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false		(2)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS
<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]						

Proposal 15655 - J08 c (05) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

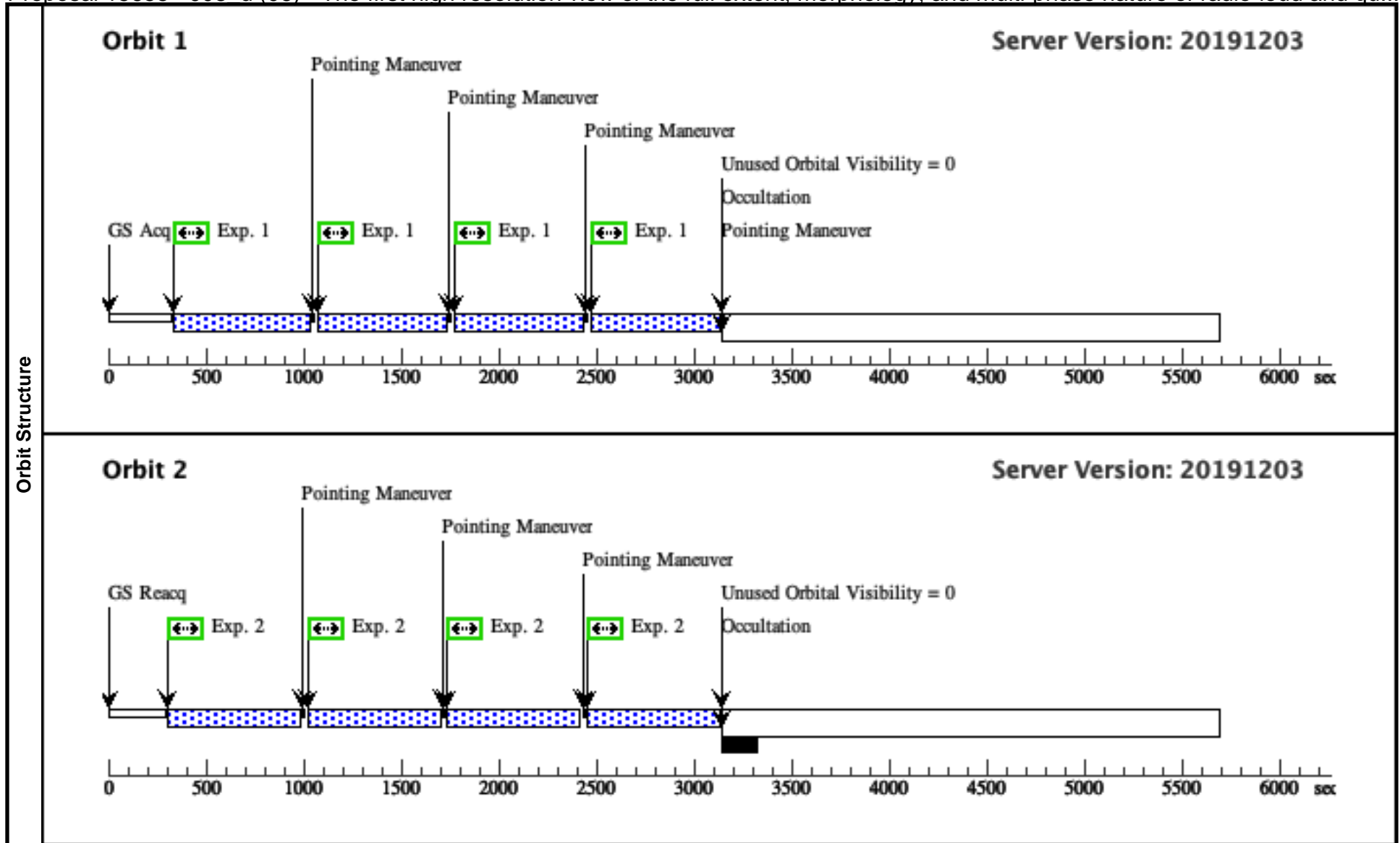
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP			SHADOW	Pattern 1, Exps 1-1 i n J08_c (05) (1)	349 Secs (1396 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	(ACS.im.12 99753)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F165LP				Pattern 2, Exps 2-2 i n J08_c (05) (2)	348 Secs (696 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F125LP			SHADOW	Pattern 1, Exps 3-3 i n J08_c (05) (1)	351 Secs (1404 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]
	4	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP					357 Secs (357 Secs) [=>]	[2]
	5	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP					356 Secs (356 Secs) [=>]	[2]





Proposal 15655 - J08_d (06) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

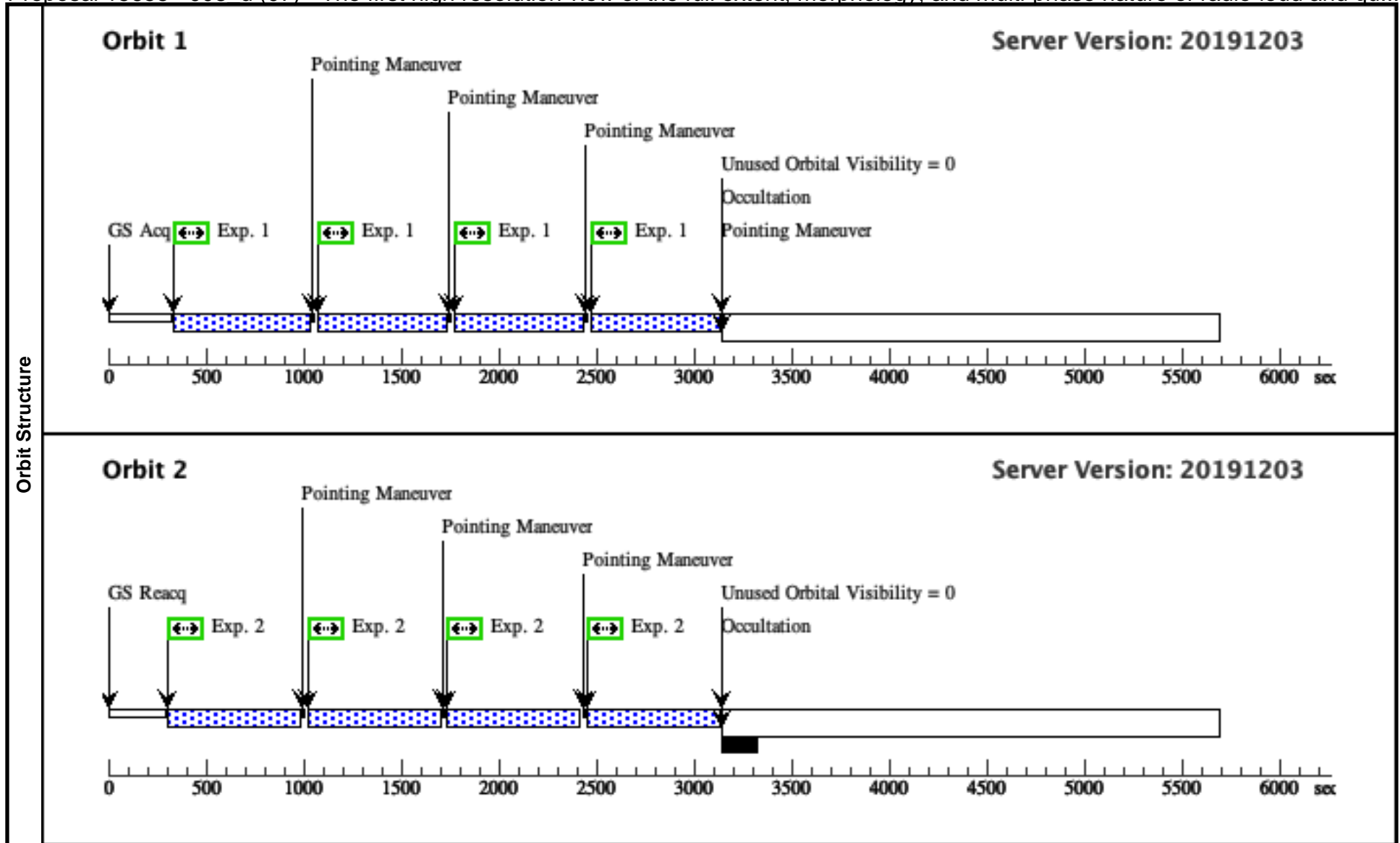
Visit		Proposal 15655, J08_d (06), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit in F140LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>					Thu Mar 26 22:00:55 GMT 2020			
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false			(1), (2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP				Pattern 1, Exps 1-1 in J08_d (06) (1)	500 Secs (2540 Secs) [==>635.0 Secs (Pattern 1)] [==>635.0 Secs (Pattern 2)] [==>635.0 Secs (Pattern 3)] [==>635.0 Secs (Pattern 4)]
2	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP				Pattern 1, Exps 2-2 in J08_d (06) (1)	500 Secs (2612 Secs) [==>653.0 Secs (Pattern 1)] [==>653.0 Secs (Pattern 2)] [==>653.0 Secs (Pattern 3)] [==>653.0 Secs (Pattern 4)]	[2]



Proposal 15655 - J08_d (07) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:55 GMT 2020

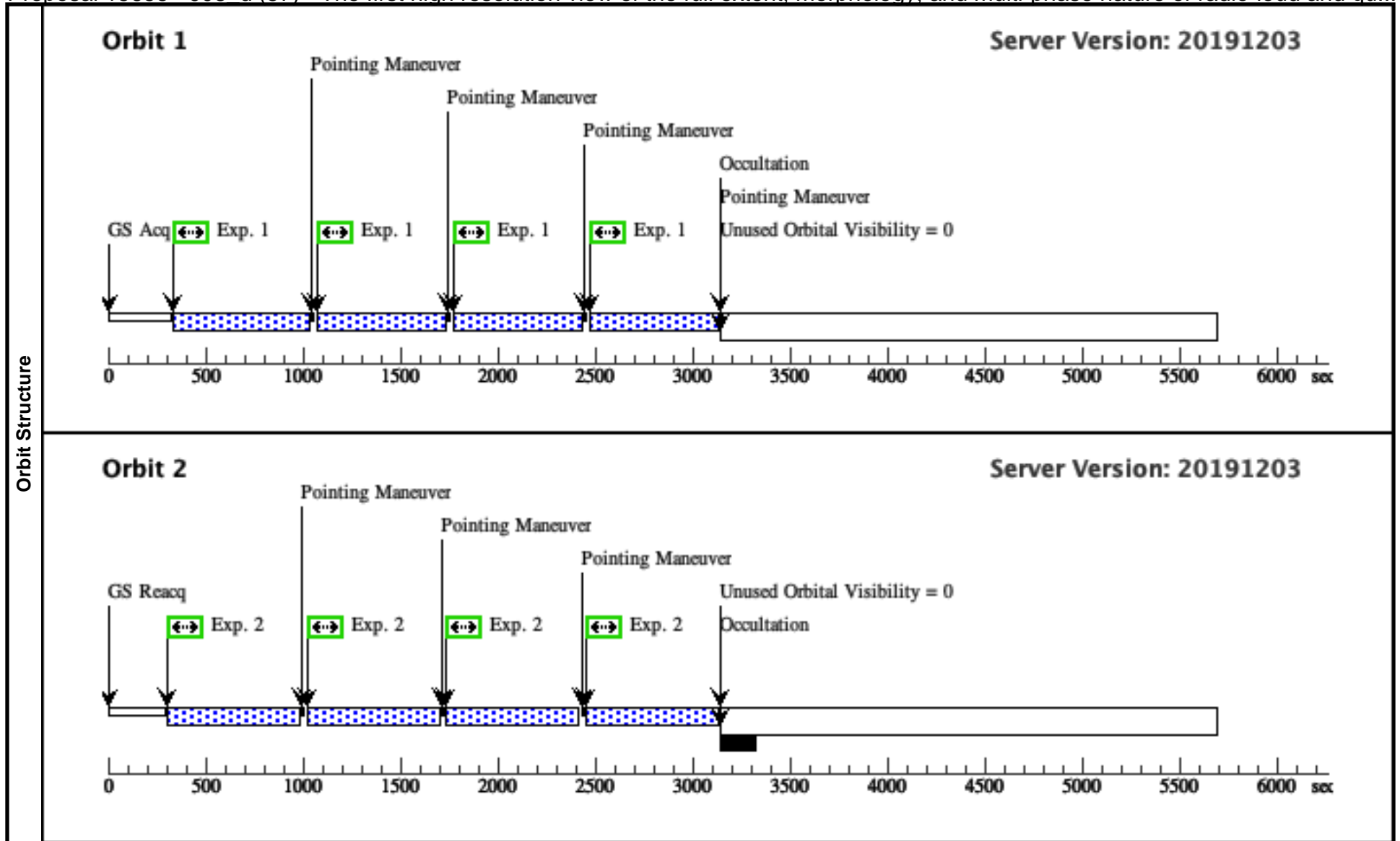
Visit	Proposal 15655, J08_d (07), failed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit in F140LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000			V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS			
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 1, Exps 1-1 in J08_d (07) (1)	500 Secs (2540 Secs) [==>635.0 Secs (Pattern 1)] [==>635.0 Secs (Pattern 2)] [==>635.0 Secs (Pattern 3)] [==>635.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 1, Exps 2-2 in J08_d (07) (1)	500 Secs (2612 Secs) [==>653.0 Secs (Pattern 1)] [==>653.0 Secs (Pattern 2)] [==>653.0 Secs (Pattern 3)] [==>653.0 Secs (Pattern 4)]	[2]	



Proposal 15655 - J08_d (57) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:55 GMT 2020

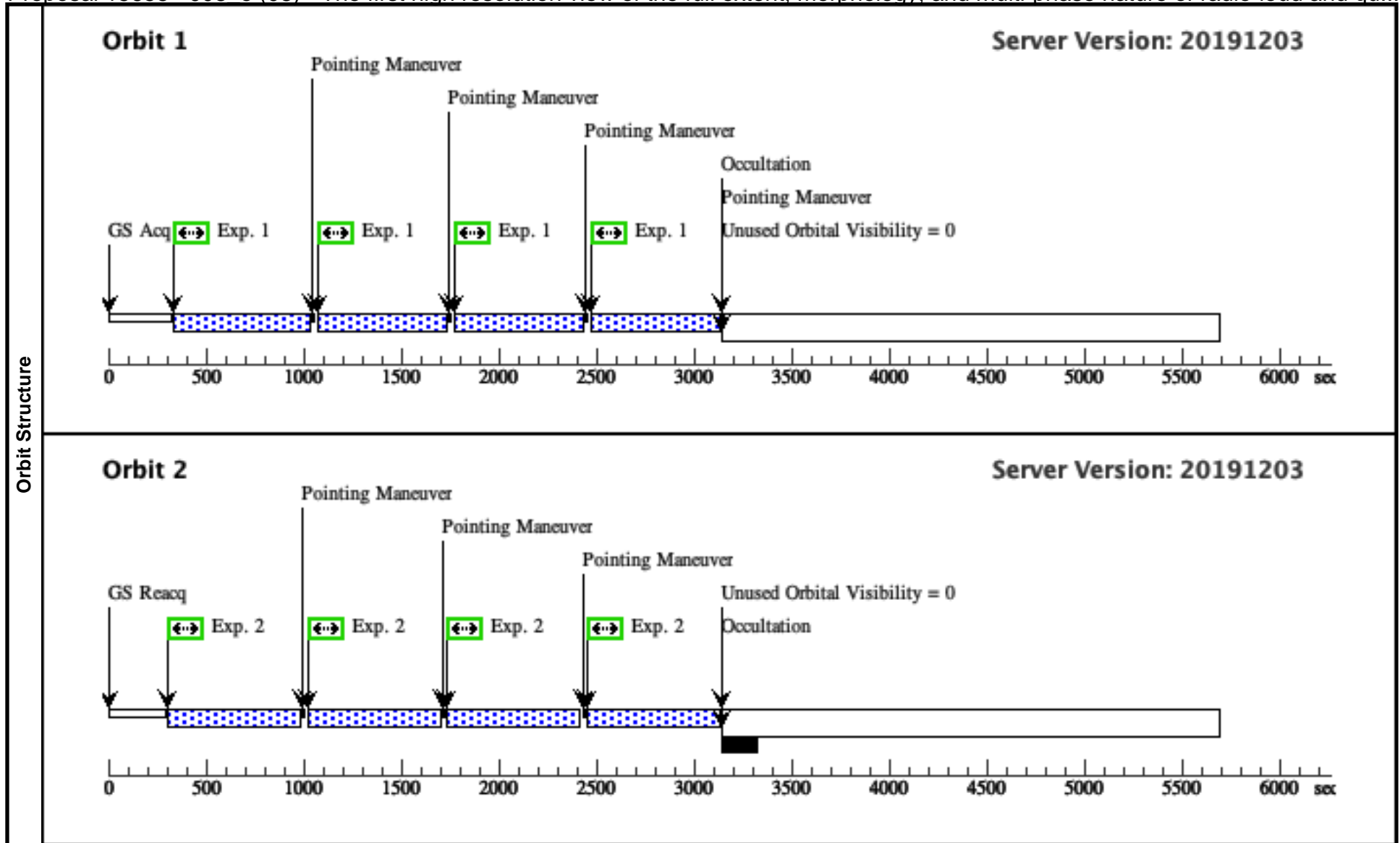
Visit	Proposal 15655, J08_d (57) Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit in F140LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
	<i>Comments: Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]</i>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 1, Exps 1-1 in J08_d (57) (1)	500 Secs (2540 Secs) [==>635.0 Secs (Pattern 1)] [==>635.0 Secs (Pattern 2)] [==>635.0 Secs (Pattern 3)] [==>635.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99747)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F140LP			Pattern 1, Exps 2-2 in J08_d (57) (1)	500 Secs (2612 Secs) [==>653.0 Secs (Pattern 1)] [==>653.0 Secs (Pattern 2)] [==>653.0 Secs (Pattern 3)] [==>653.0 Secs (Pattern 4)]	[2]	



Proposal 15655 - J08_e (08) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

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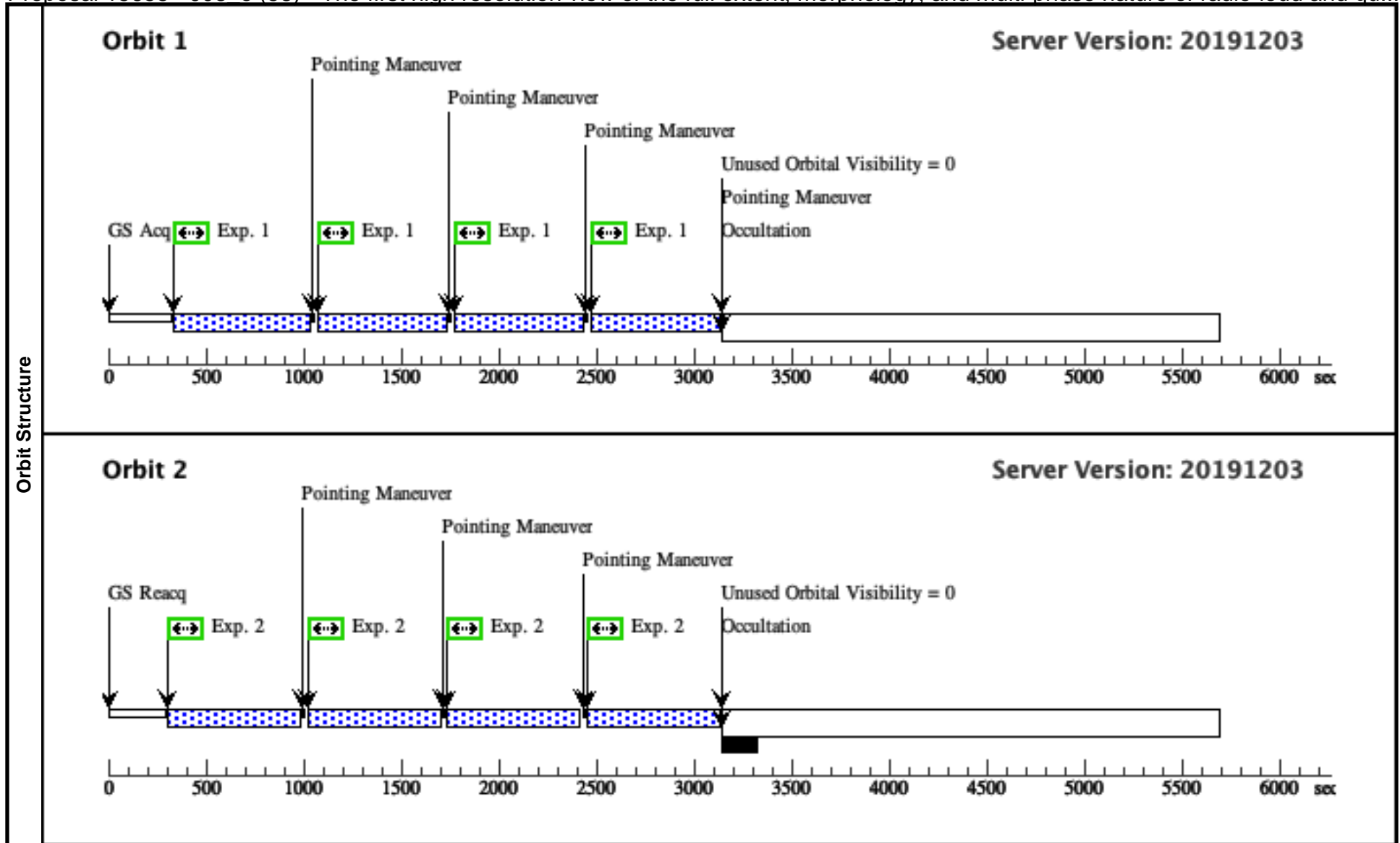
Visit	Proposal 15655, J08_e (08), failed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F150LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 1-1 in J08_e (08) (1)	500 Secs (2540 Secs) [=>635.0 Secs (Pattern 1)] [=>635.0 Secs (Pattern 2)] [=>635.0 Secs (Pattern 3)] [=>635.0 Secs (Pattern 4)]	[1]
	2	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 2-2 in J08_e (08) (1)	500 Secs (2612 Secs) [=>653.0 Secs (Pattern 1)] [=>653.0 Secs (Pattern 2)] [=>653.0 Secs (Pattern 3)] [=>653.0 Secs (Pattern 4)]	[2]



Proposal 15655 - J08_e (58) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

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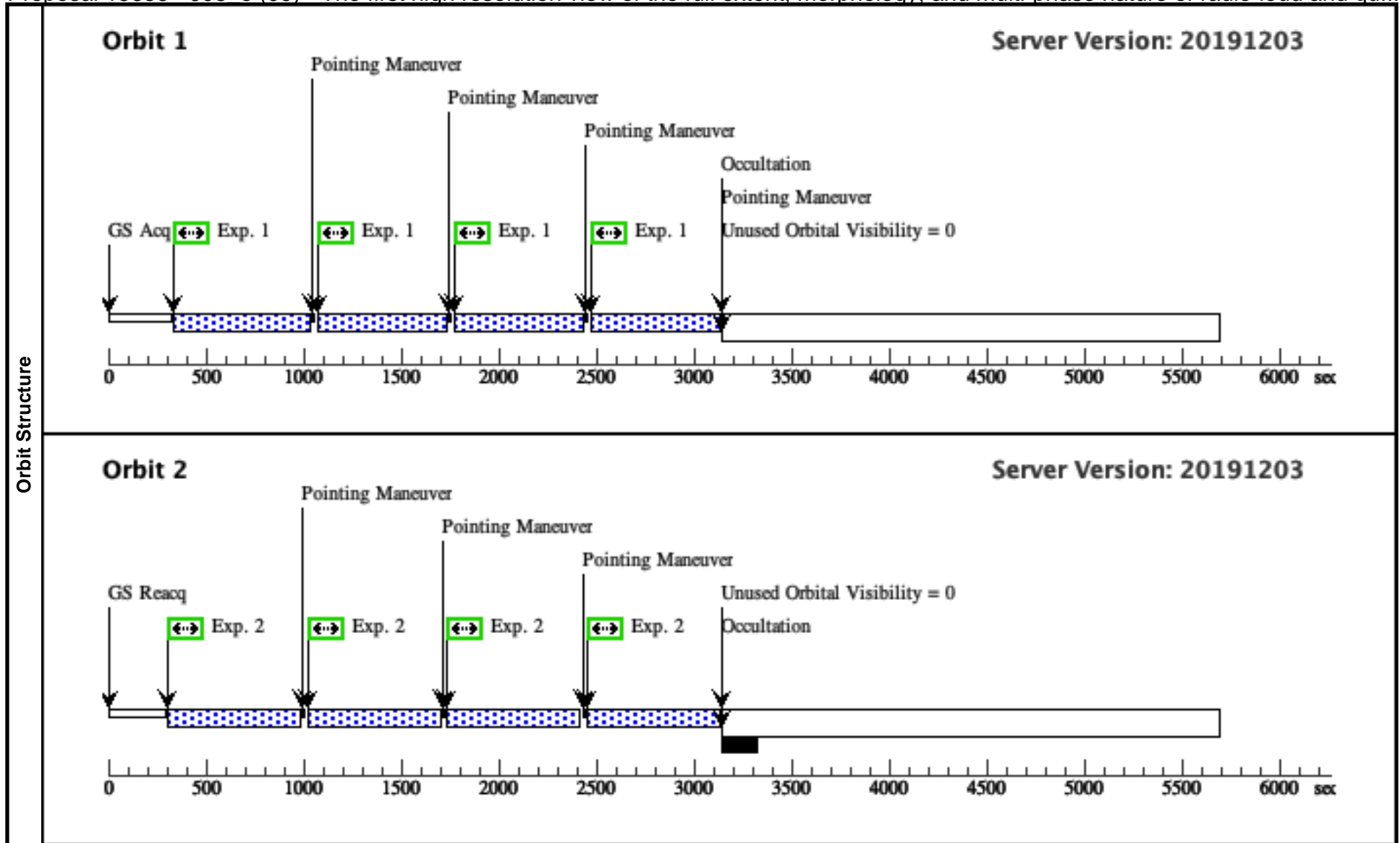
Visit	Proposal 15655, J08_e (58) Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F150LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 1-1 in J08_e (58) (1)	500 Secs (2540 Secs) [=>635.0 Secs (Pattern 1)] [=>635.0 Secs (Pattern 2)] [=>635.0 Secs (Pattern 3)] [=>635.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 2-2 in J08_e (58) (1)	500 Secs (2612 Secs) [=>653.0 Secs (Pattern 1)] [=>653.0 Secs (Pattern 2)] [=>653.0 Secs (Pattern 3)] [=>653.0 Secs (Pattern 4)]	[2]	



Proposal 15655 - J08_e (09) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

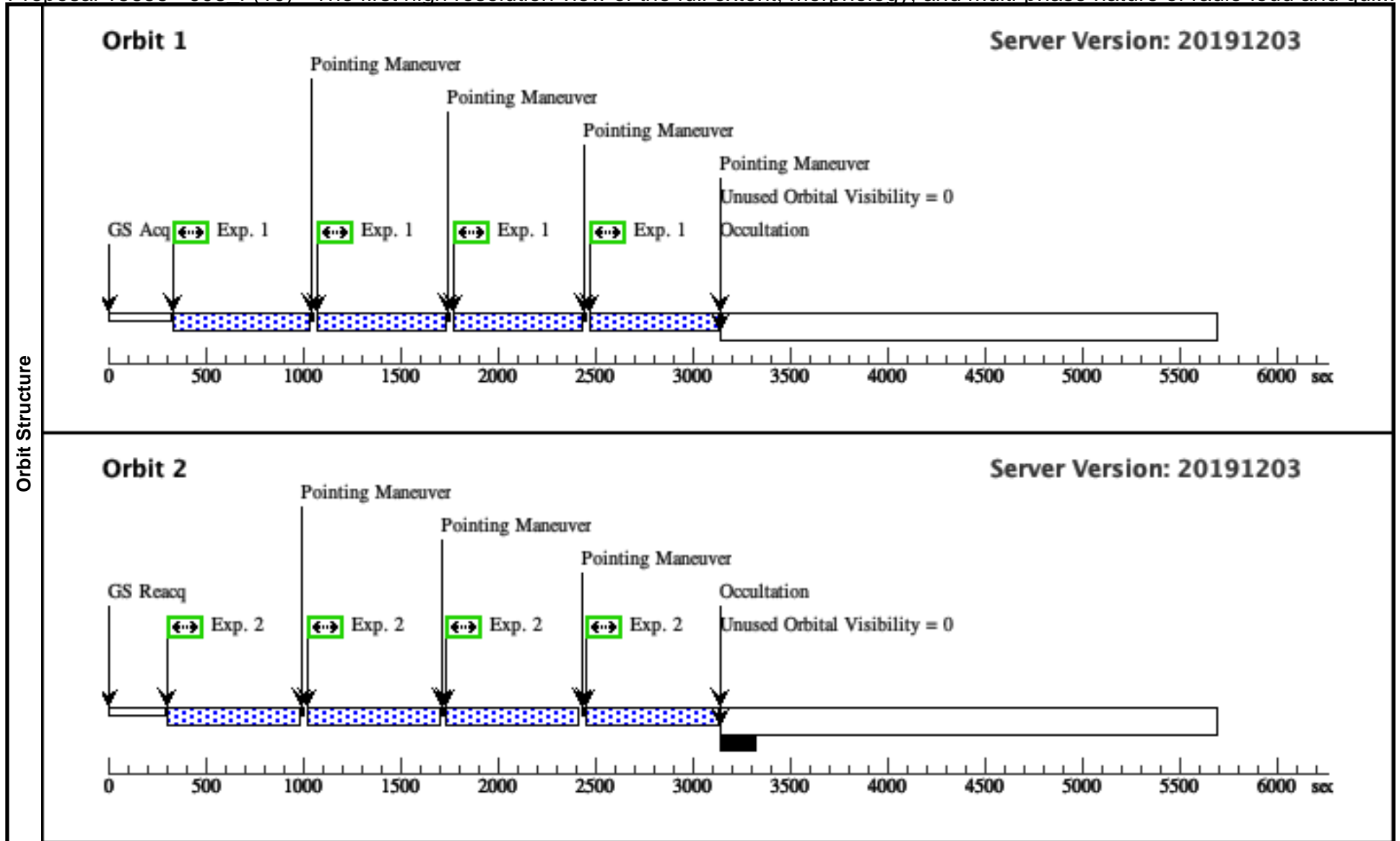
Visit	Proposal 15655, J08_e (09), scheduled Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F150LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000		V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 1-1 in J08_e (09) (1)	500 Secs (2540 Secs) [==>635.0 Secs (Pattern 1)] [==>635.0 Secs (Pattern 2)] [==>635.0 Secs (Pattern 3)] [==>635.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99752)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 2-2 in J08_e (09) (1)	500 Secs (2612 Secs) [==>653.0 Secs (Pattern 1)] [==>653.0 Secs (Pattern 2)] [==>653.0 Secs (Pattern 3)] [==>653.0 Secs (Pattern 4)]	[2]	



Proposal 15655 - J08 f (10) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qui...

Thu Mar 26 22:00:56 GMT 2020

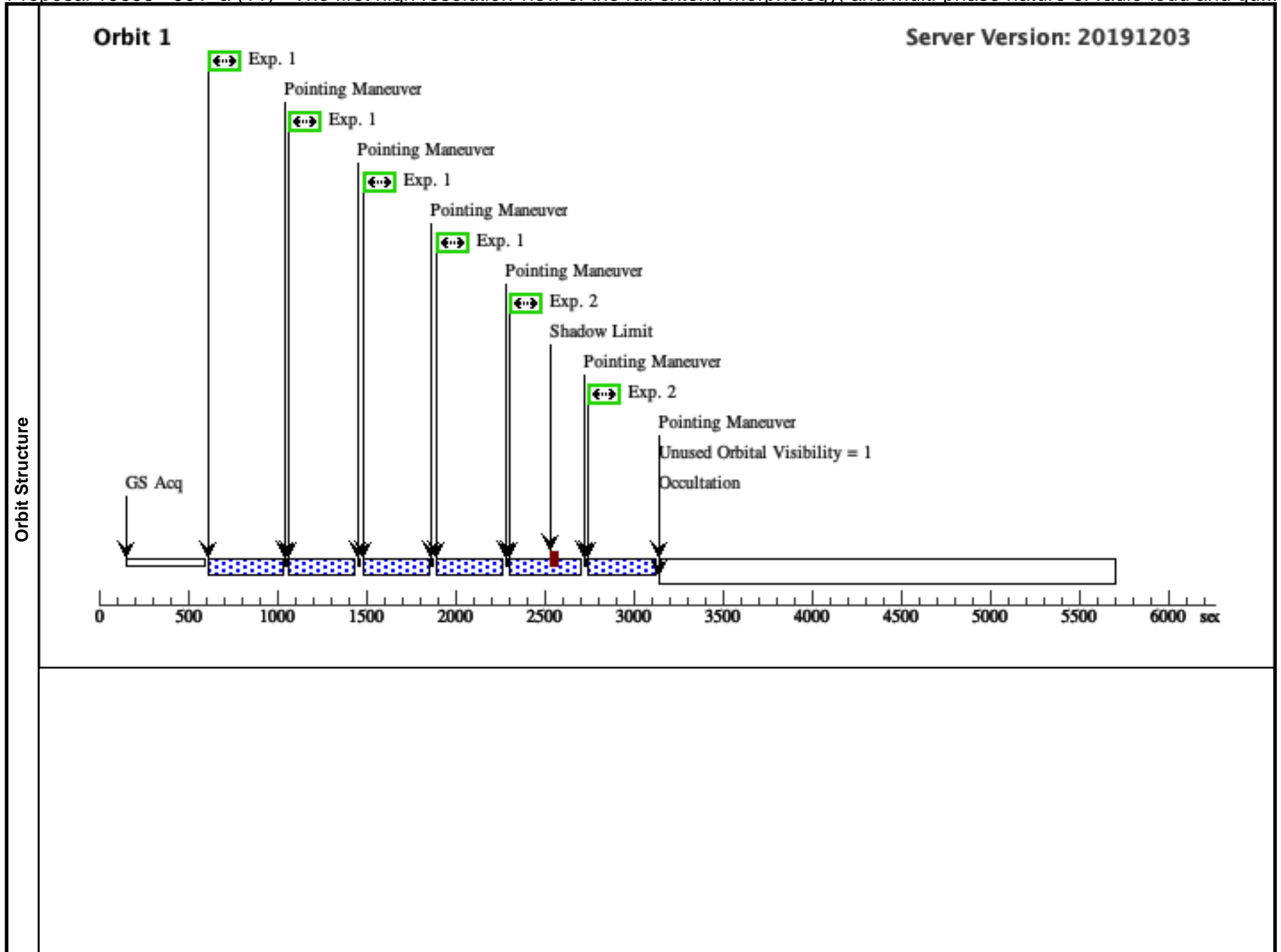
Visit	Proposal 15655, J08_f (10), scheduled Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F165LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(1)	J0833+1000	RA: 08 33 15.0800 (128.3128333d) Dec: +10 00 52.38 (10.01455d) Equinox: J2000			V=19.3 u=20.8, g=19.6, r=18.1, i=17.9, z=17.6	Reference Frame: ICRS			
	<i>Comments:</i> Category=GALAXY Description=[NLR, NUCLEUS, QUASAR, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99753)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F165LP			Pattern 1, Exps 1-1 in J08_f (10) (1)	600 Secs (2540 Secs) [==>635.0 Secs (Pattern 1)] [==>635.0 Secs (Pattern 2)] [==>635.0 Secs (Pattern 3)] [==>635.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99753)	(1) J0833+1000	ACS/SBC, ACCUM, SBC	F165LP			Pattern 1, Exps 2-2 in J08_f (10) (1)	600 Secs (2612 Secs) [==>653.0 Secs (Pattern 1)] [==>653.0 Secs (Pattern 2)] [==>653.0 Secs (Pattern 3)] [==>653.0 Secs (Pattern 4)]	[2]	

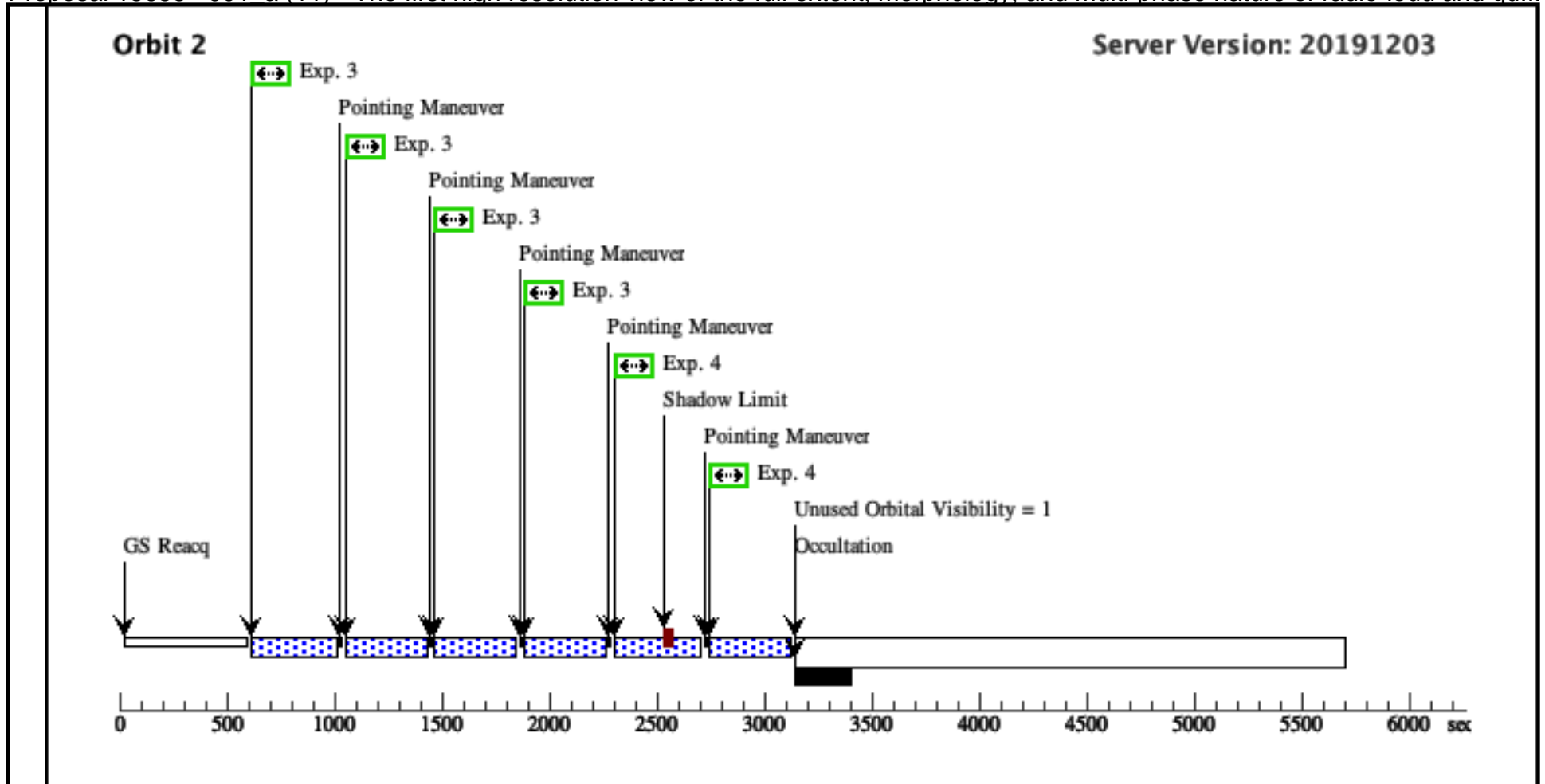


Proposal 15655 - J01_a (11) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_a (11), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F140LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false							(2), (4)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000		V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J01_a (11) (1)	349 Secs (1396 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 2-2 in J01_a (11) (2)	353 Secs (706 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J01_a (11) (1)	352 Secs (1408 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]
	4	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 4-4 in J01_a (11) (2)	356 Secs (712 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[2]

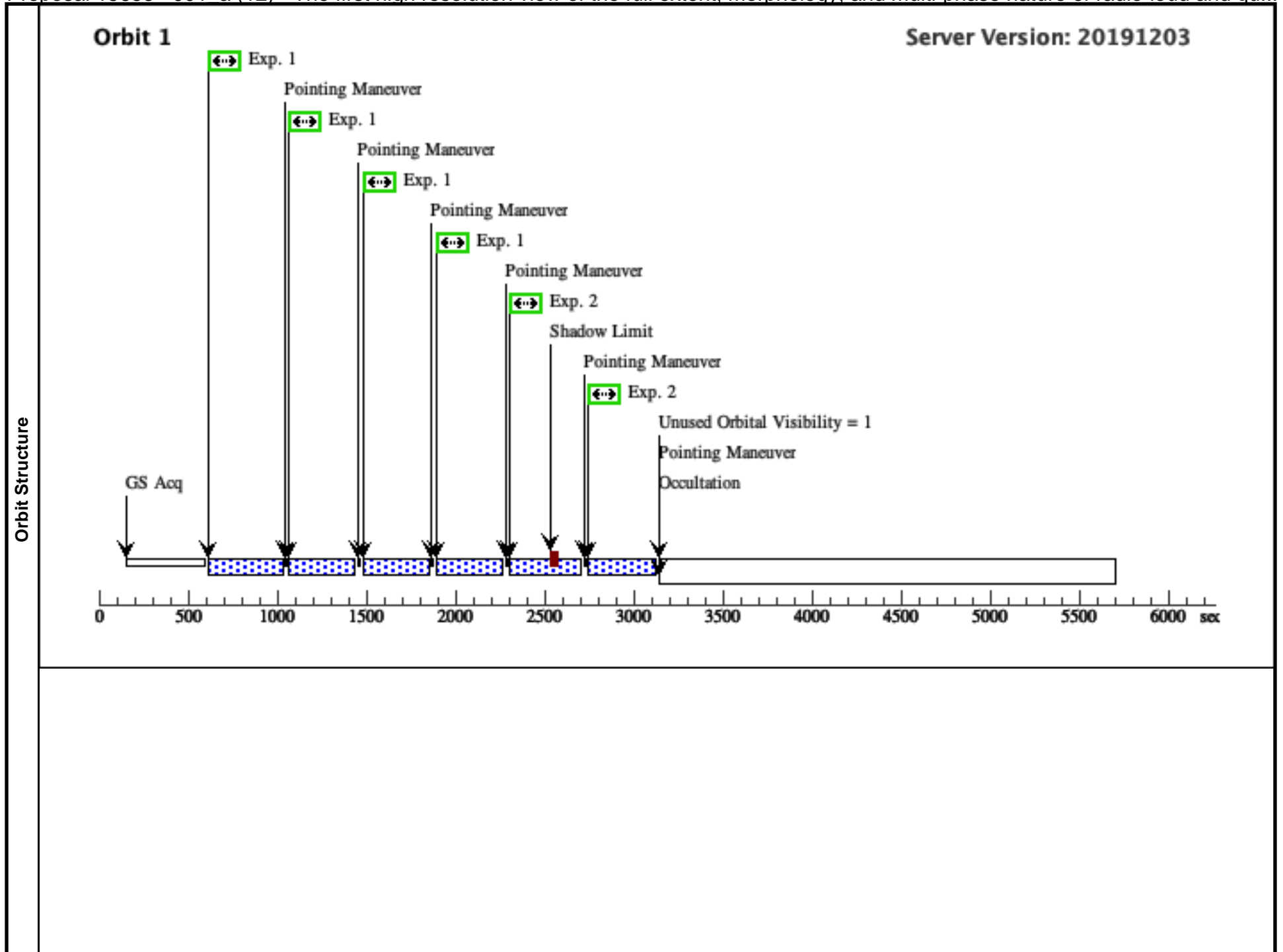


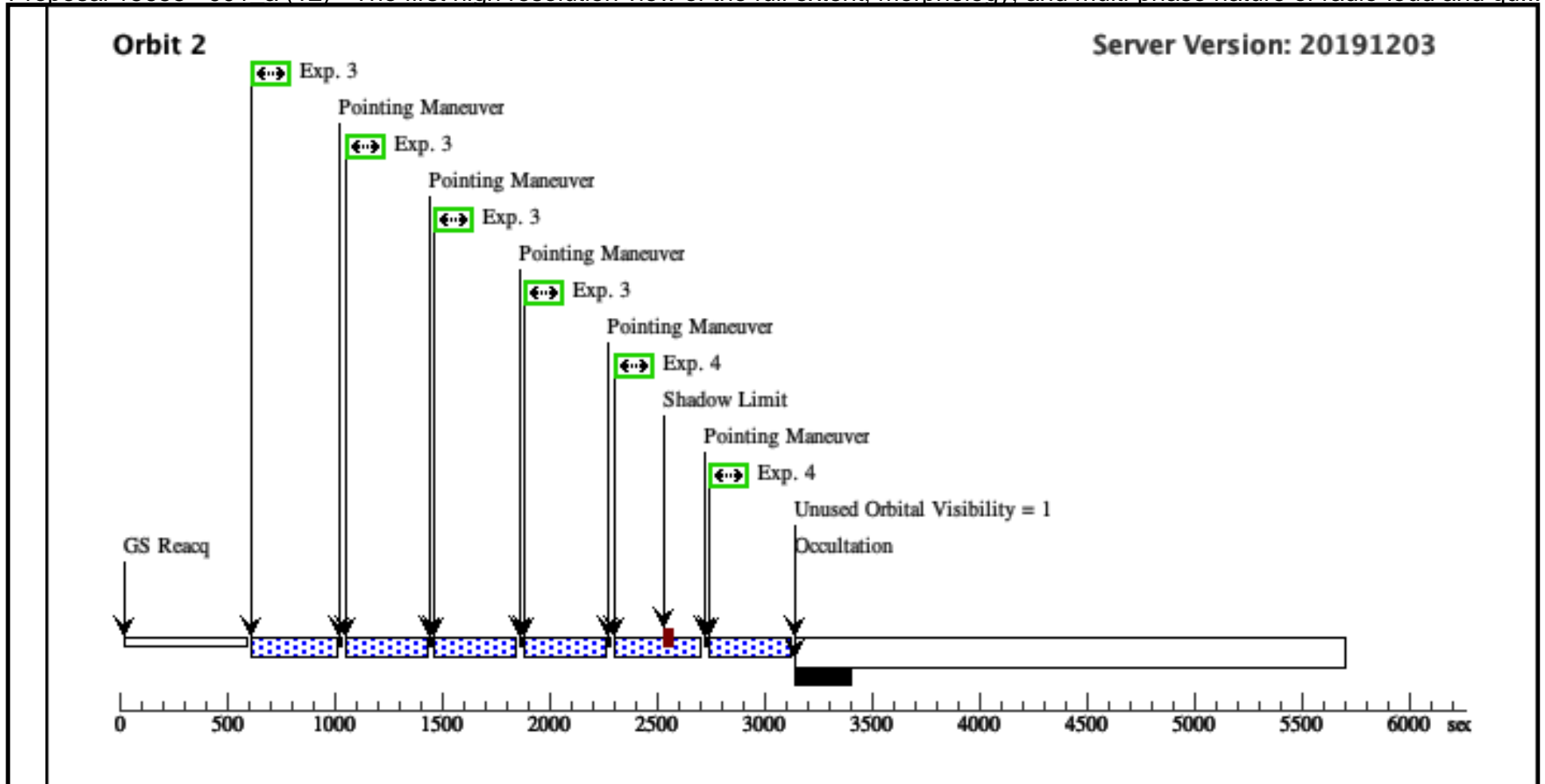


Proposal 15655 - J01_a (12) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_a (12), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F140LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false		(1), (3)				
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false		(2), (4)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000		V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J01_a (12) (1)	349 Secs (1396 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 2-2 in J01_a (12) (2)	353 Secs (706 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J01_a (12) (1)	352 Secs (1408 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]
	4	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 4-4 in J01_a (12) (2)	356 Secs (712 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[2]

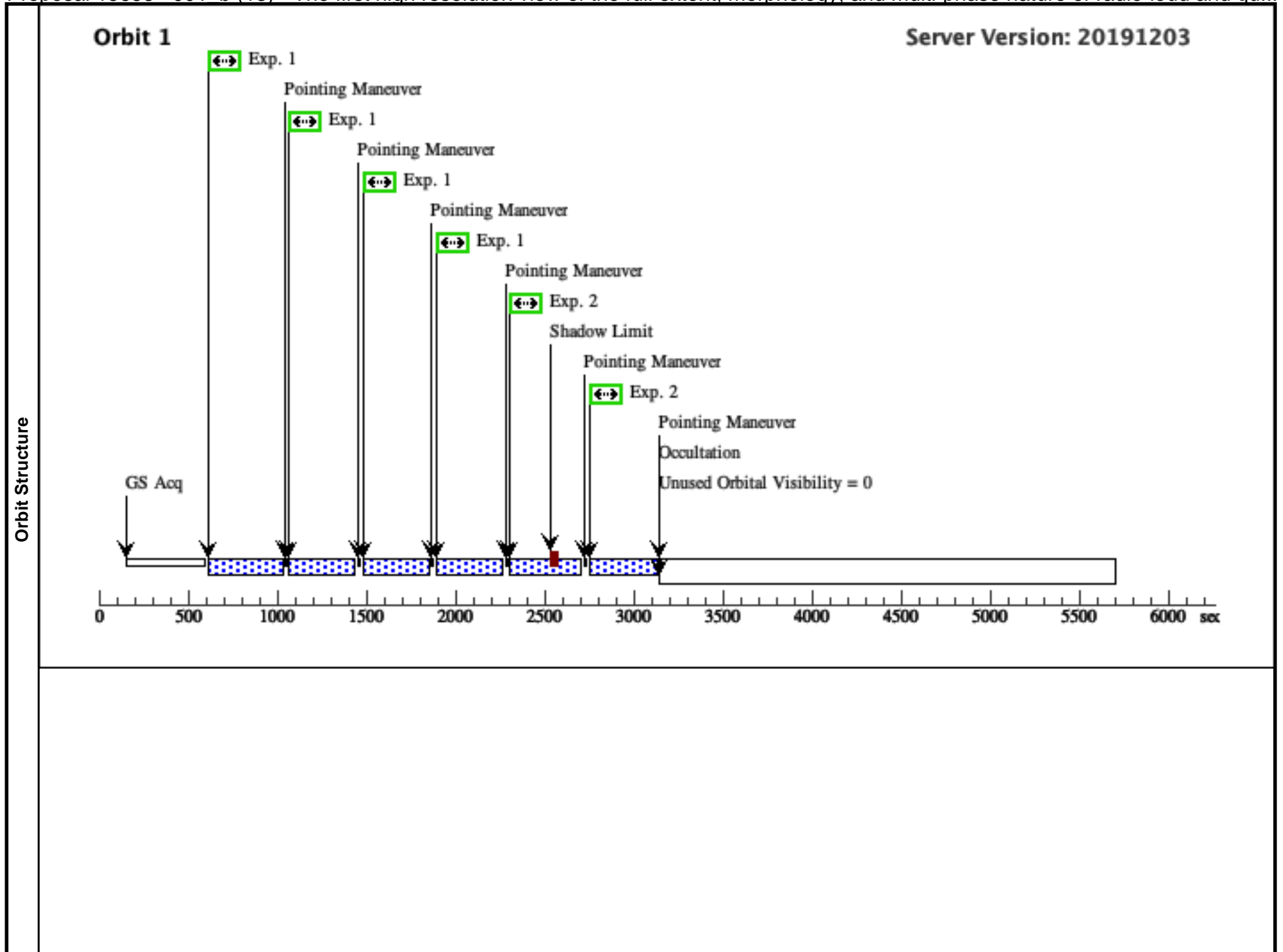


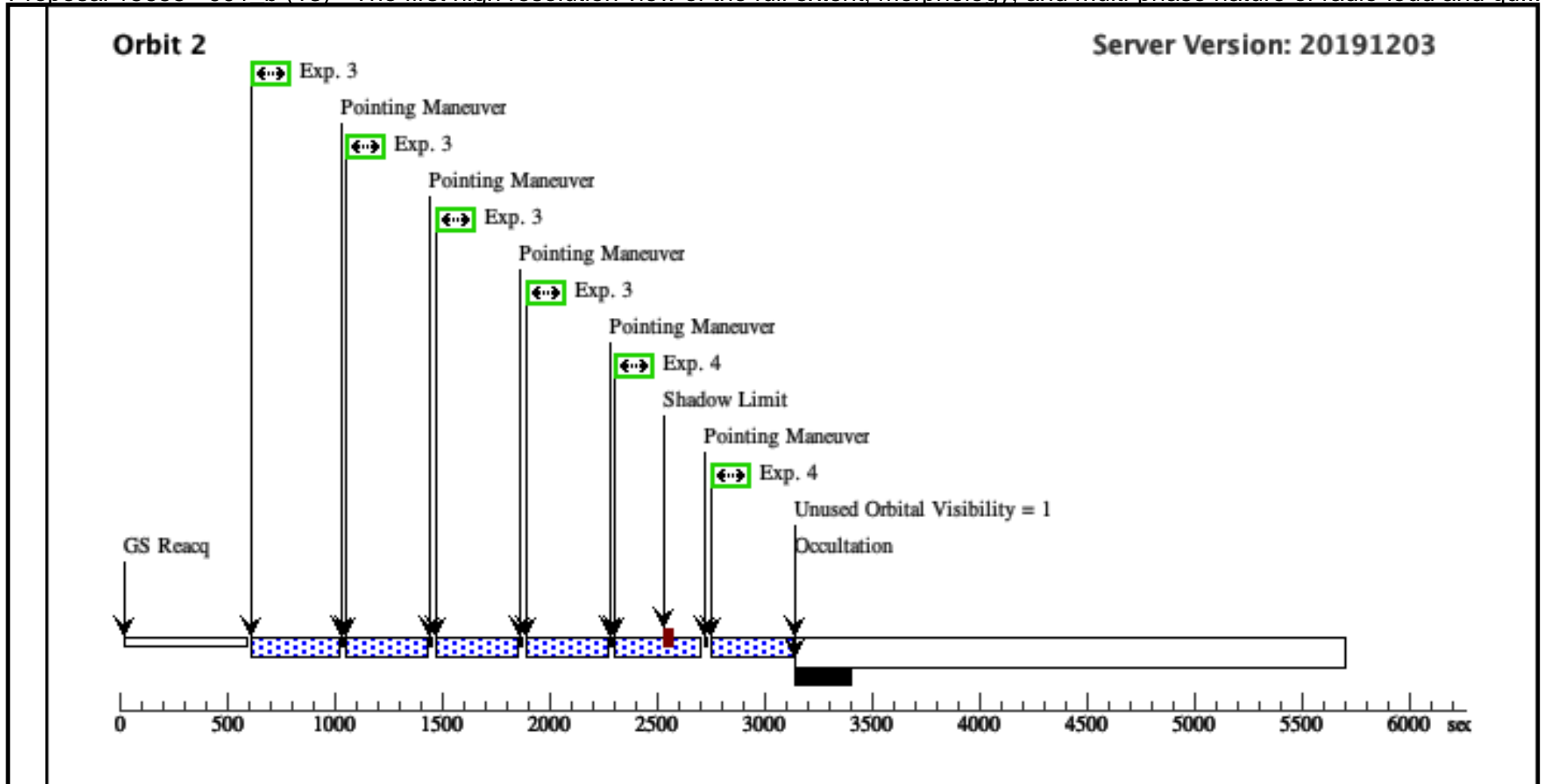


Proposal 15655 - J01_b (13) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_b (13), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F150LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false					(1), (3)	
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false					(2), (4)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000		V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J01_b (13) (1)	349 Secs (1396 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 2-2 in J01_b (13) (2)	351 Secs (702 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J01_b (13) (1)	352 Secs (1408 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]
	4	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 4-4 in J01_b (13) (2)	351 Secs (702 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]

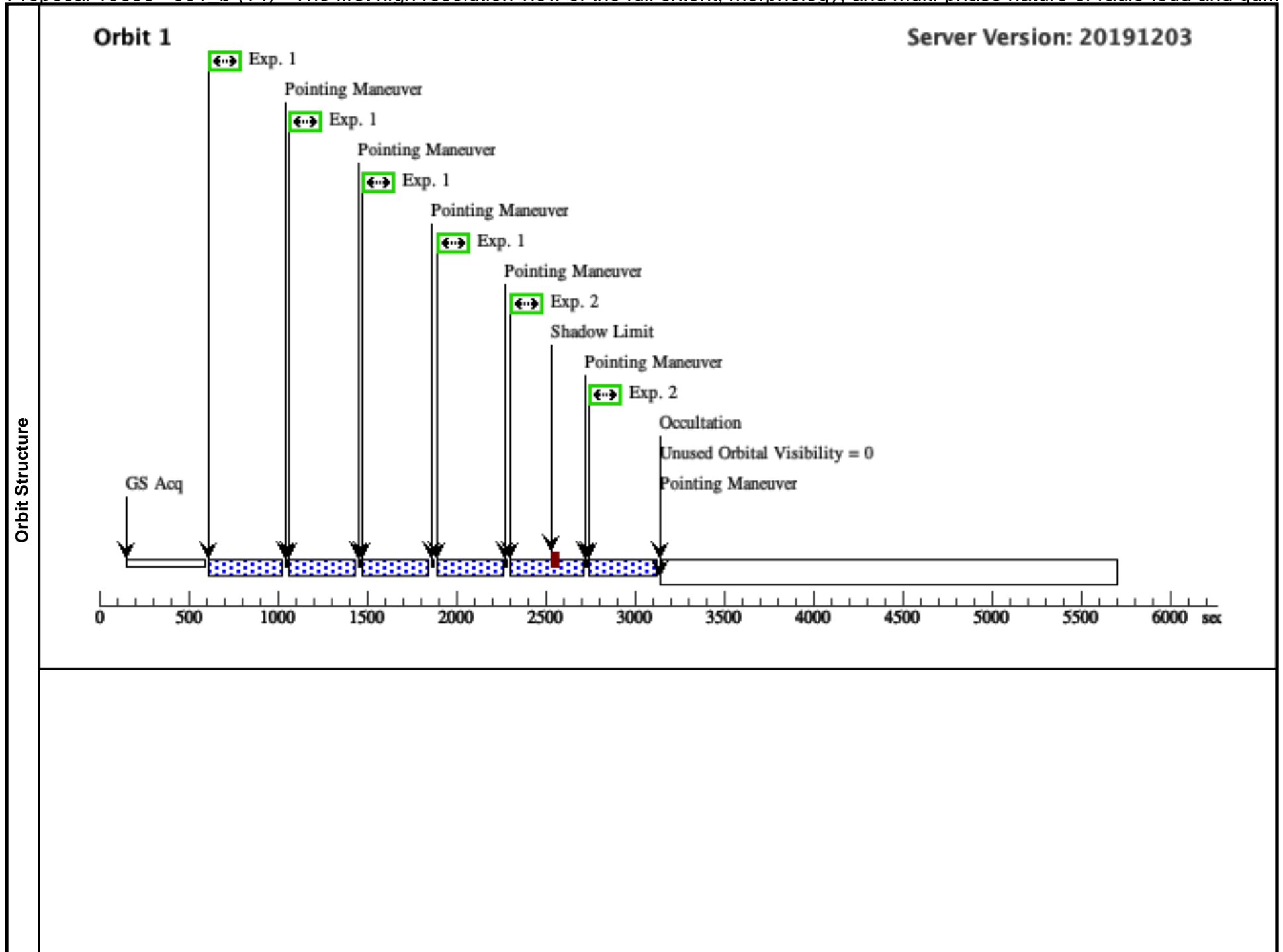


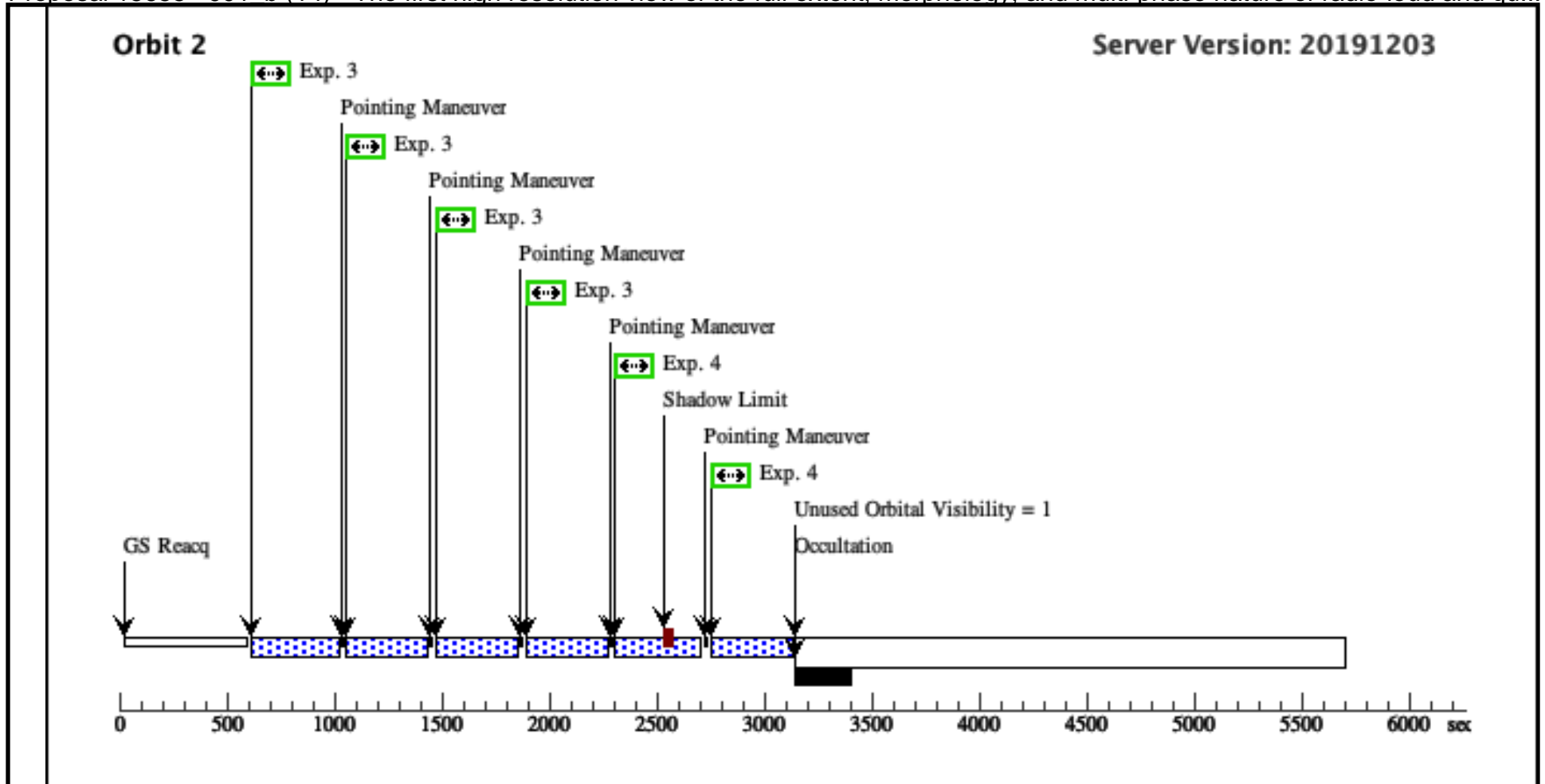


Proposal 15655 - J01_b (14) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_b (14), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F150LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false		(1), (3)				
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false		(2), (4)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000		V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J01_b (14) (1)	348 Secs (1392 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 2-2 in J01_b (14) (2)	353 Secs (706 Secs)	
									[==>(Pattern 1)] [==>(Pattern 2)]	[1]
3	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J01_b (14) (1)	352 Secs (1408 Secs)		
								[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[2]	
4	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 2, Exps 4-4 in J01_b (14) (2)	351 Secs (702 Secs)		
								[==>(Pattern 1)] [==>(Pattern 2)]	[2]	

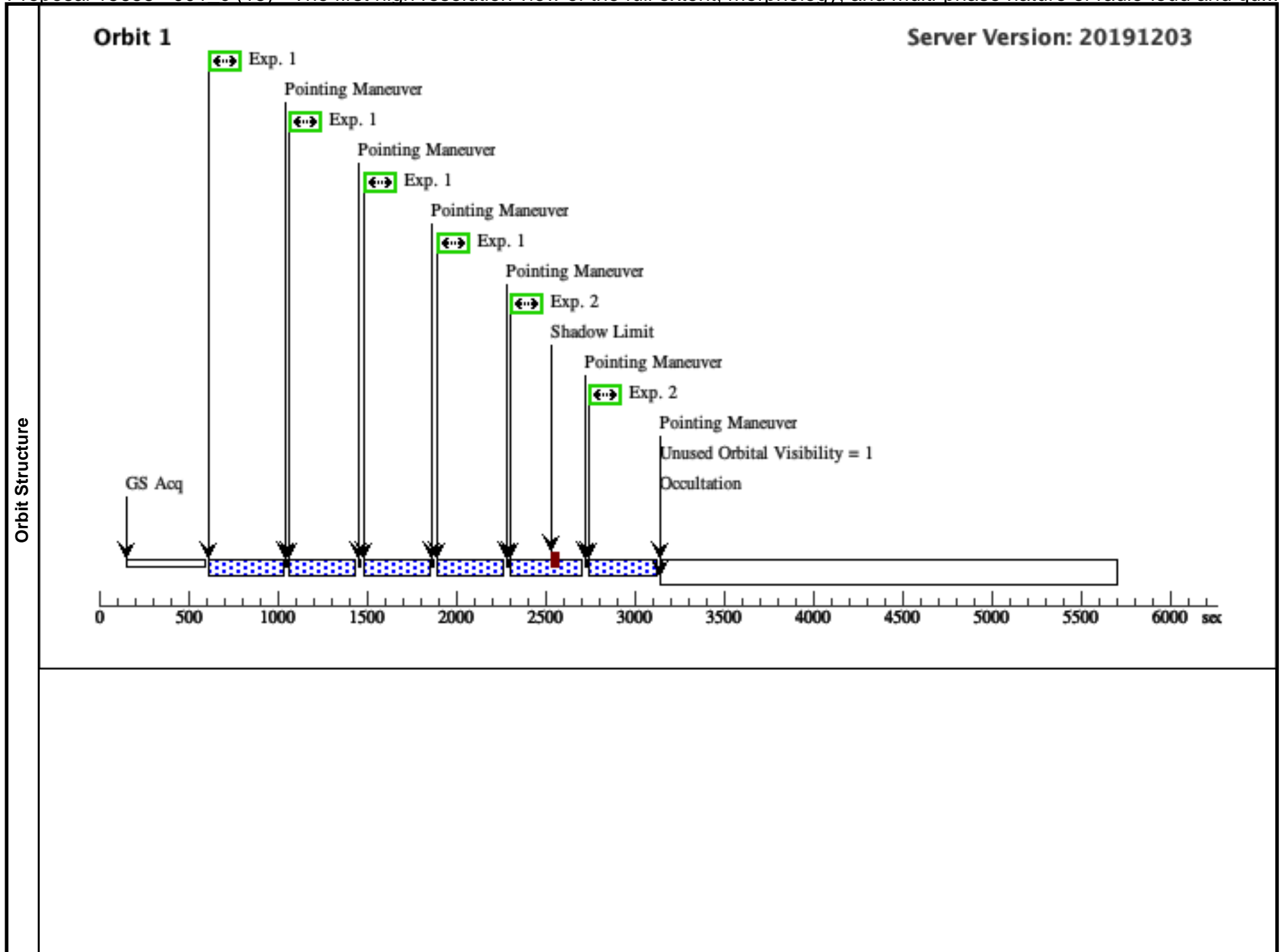


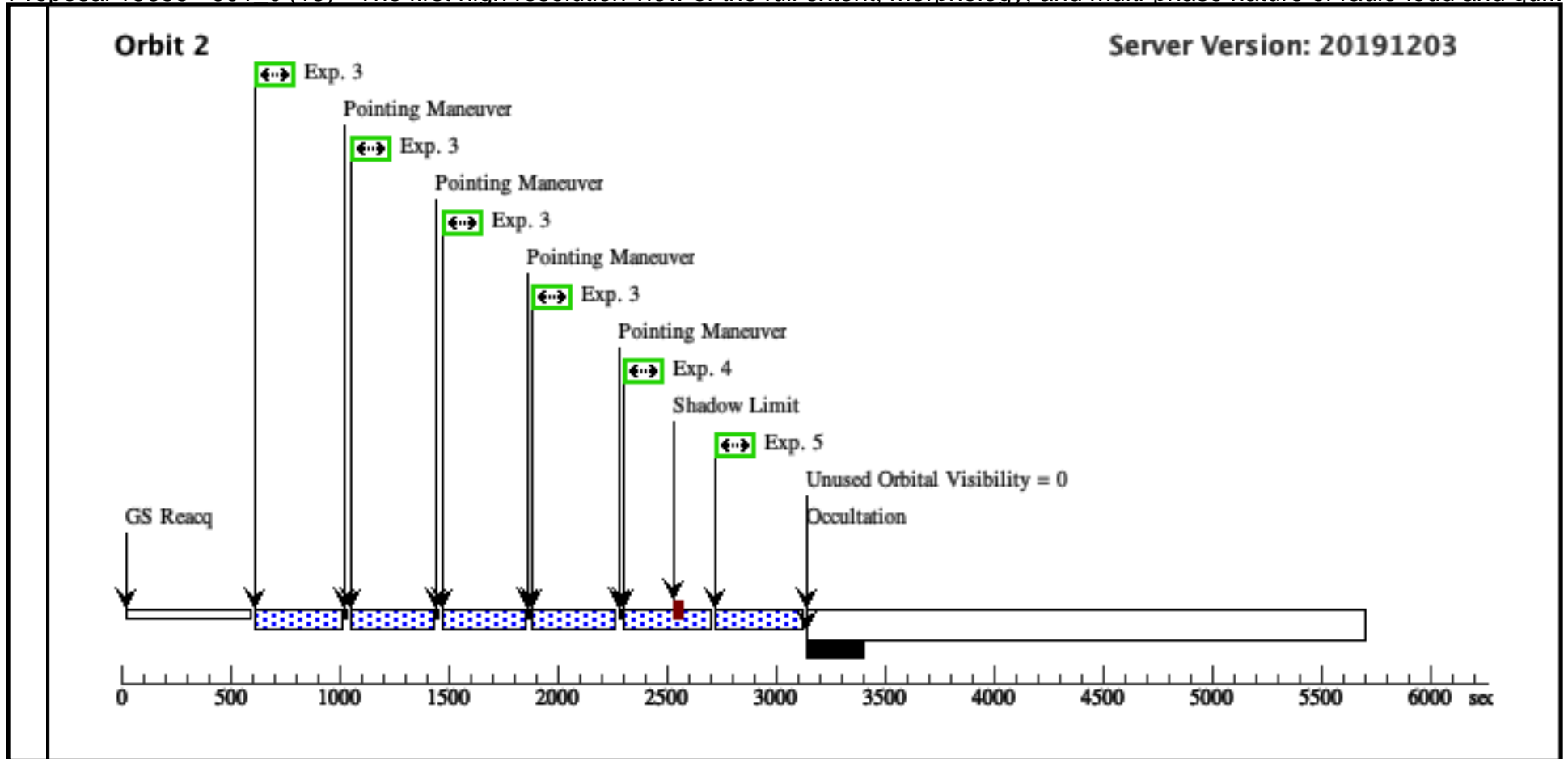


Proposal 15655 - J01_c (15) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_c (15), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: 2 orbit visit with F125LP while in shadow and F140LP, F150LP while not. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
	(2)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=4 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false							(2)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000		V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 1-1 in J01_c (15) (1)	349 Secs (1396 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
	2	(ACS.im.12 99753)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP			Pattern 2, Exps 2-2 in J01_c (15) (2)	353 Secs (706 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	(ACS.im.12 99746)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F125LP		SHADOW	Pattern 1, Exps 3-3 in J01_c (15) (1)	353 Secs (1412 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[2]
	4	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP				357 Secs (357 Secs) [=>]	[2]
	5	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP				359 Secs (359 Secs) [=>]	[2]

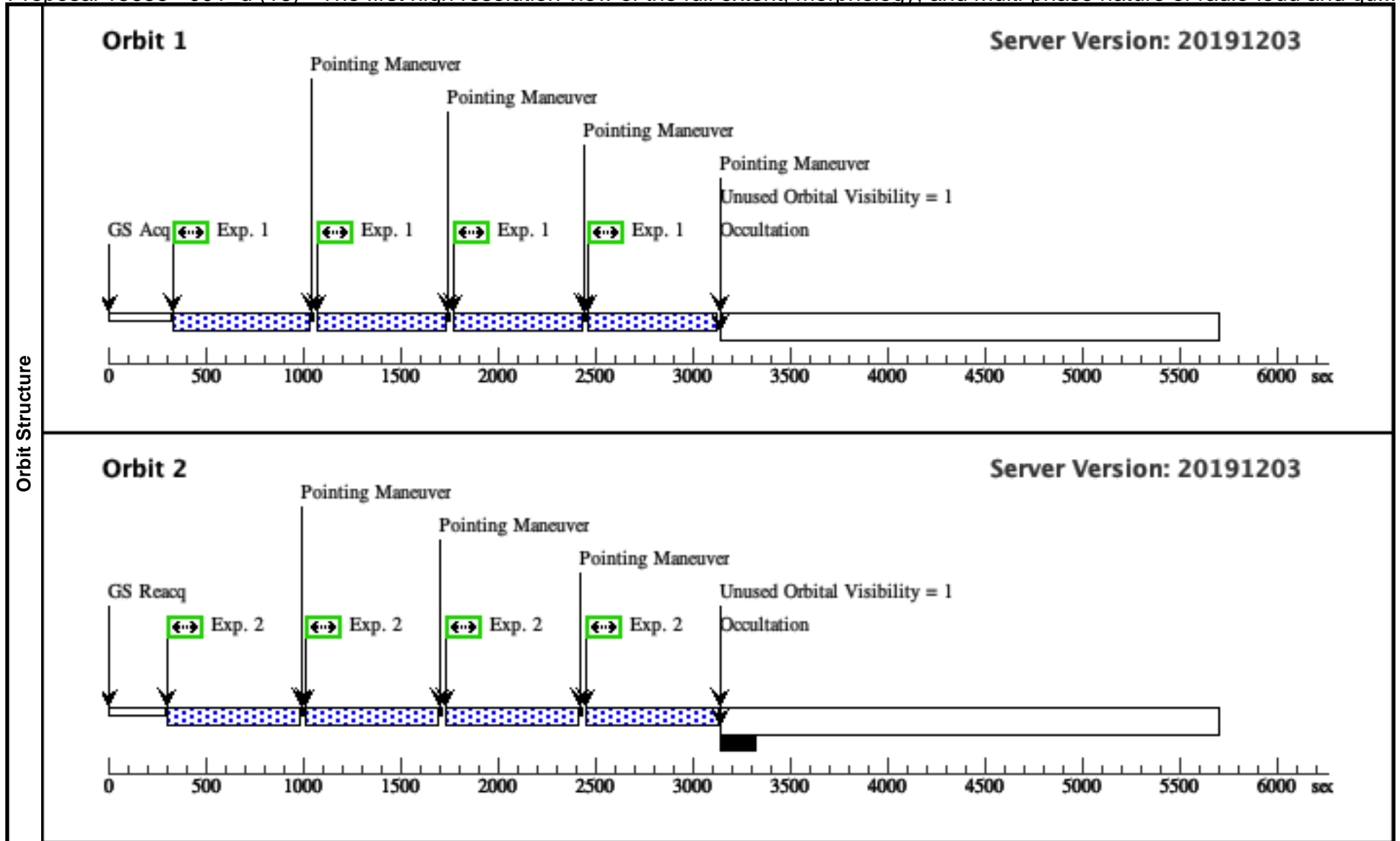




Proposal 15655 - J01_d (16) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_d (16), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F140LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000			V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS			
	<i>Comments: Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]</i>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP			Pattern 1, Exps 1-1 in J01_d (16) (1)	500 Secs (2532 Secs) [==>633.0 Secs (Pattern 1)] [==>633.0 Secs (Pattern 2)] [==>633.0 Secs (Pattern 3)] [==>633.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP			Pattern 1, Exps 2-2 in J01_d (16) (1)	500 Secs (2604 Secs) [==>651.0 Secs (Pattern 1)] [==>651.0 Secs (Pattern 2)] [==>651.0 Secs (Pattern 3)] [==>651.0 Secs (Pattern 4)]	[2]	



Proposal 15655 - J01_d (17) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

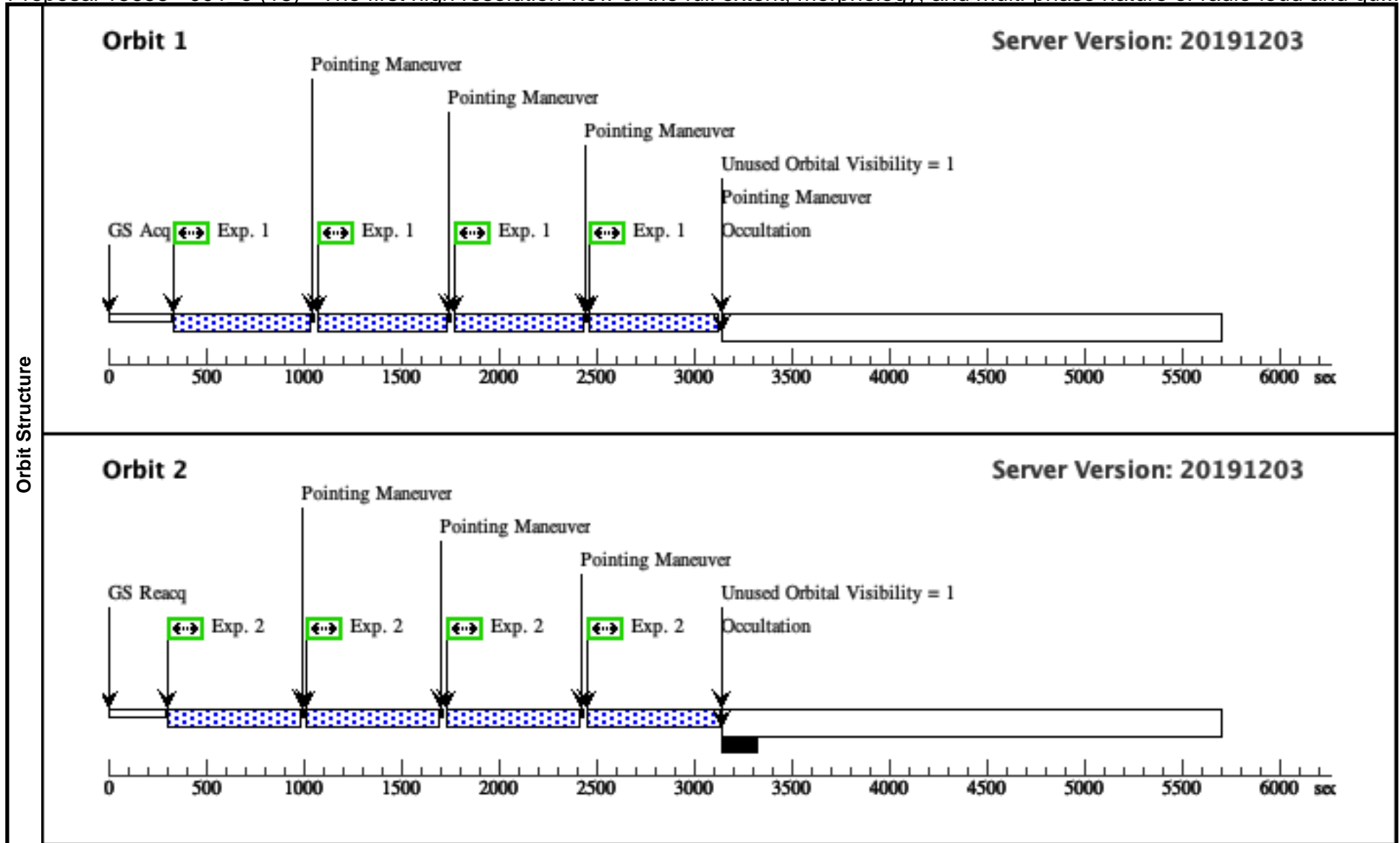
Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_d (17), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) Comments: One orbit visit in F140LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.										
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures						
	(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false		(1)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000		V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS					
	Comments: Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(ACS.im.12 99747)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F140LP				Pattern 1, Exps 1-1 in J01_d (17) (1) 500 Secs (2532 Secs) [=>633.0 Secs (Pattern 1)] [=>633.0 Secs (Pattern 2)] [=>633.0 Secs (Pattern 3)] [=>633.0 Secs (Pattern 4)]	[1]	
Orbit Structure	Orbit 1 Server Version: 20191203										
	<p>The diagram illustrates the orbit structure over a 6000-second period. Key events are marked on the timeline:</p> <ul style="list-style-type: none"> GS Acq: Occurs at approximately 250 seconds. Exp. 1: Four exposures are scheduled, each lasting 633.0 seconds, starting at approximately 400, 1100, 1800, and 2500 seconds. Pointing Maneuvers: Three maneuvers are indicated by vertical arrows at approximately 1000, 1700, and 2400 seconds. Occultation: Begins at approximately 3100 seconds. Unused Orbital Visibility: A period of 1 second is marked at the end of the orbit. 										

Proposal 15655 - J01_e (18) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

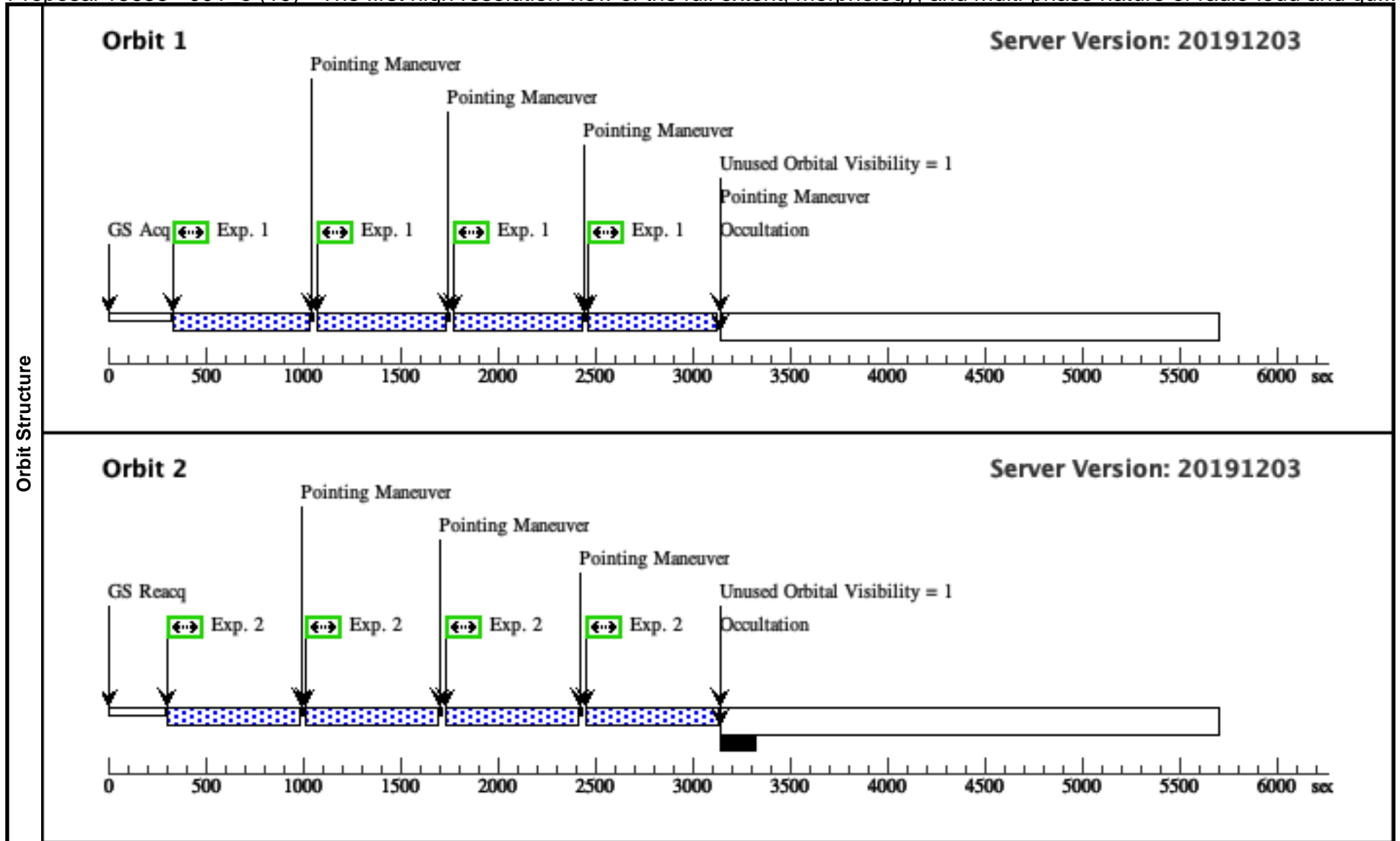
Visit	Proposal 15655, J01_e (18), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F150LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false					(1), (2)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000			V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS			
	<i>Comments: Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]</i>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 1-1 in J01_e (18) (1)	500 Secs (2532 Secs) [==>633.0 Secs (Pattern 1)] [==>633.0 Secs (Pattern 2)] [==>633.0 Secs (Pattern 3)] [==>633.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 2-2 in J01_e (18) (1)	500 Secs (2604 Secs) [==>651.0 Secs (Pattern 1)] [==>651.0 Secs (Pattern 2)] [==>651.0 Secs (Pattern 3)] [==>651.0 Secs (Pattern 4)]	[2]	



Proposal 15655 - J01_e (19) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qu...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_e (19), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F150LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000			V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS			
	<i>Comments: Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]</i>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 1-1 in J01_e (19) (1)	500 Secs (2532 Secs) [==>633.0 Secs (Pattern 1)] [==>633.0 Secs (Pattern 2)] [==>633.0 Secs (Pattern 3)] [==>633.0 Secs (Pattern 4)]	[1]
2	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP			Pattern 1, Exps 2-2 in J01_e (19) (1)	500 Secs (2604 Secs) [==>651.0 Secs (Pattern 1)] [==>651.0 Secs (Pattern 2)] [==>651.0 Secs (Pattern 3)] [==>651.0 Secs (Pattern 4)]	[2]	



Proposal 15655 - J01 f (20) - The first high resolution view of the full extent, morphology, and multi-phase nature of radio-loud and qui...

Thu Mar 26 22:00:56 GMT 2020

Visit	Proposal 15655, J01_f (20), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/SBC Special Requirements: (none) <i>Comments: Two orbit visit in F165LP and F150LP. Please schedule so that the SBC voltage has been off for at least 24 hours prior to the visit to minimize dark current.</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(1)	Pattern Type=ACS-SBC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=4 Line Spacing=4	Coordinate Frame=POS-TARG Pattern Orientation=20.02 Angle Between Sides=63.65 Center Pattern=false						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous			
	(2)	J0113+0106	RA: 01 13 41.1100 (18.4212917d) Dec: +01 06 8.52 (1.10237d) Equinox: J2000			V=19.1 u=20.9 g=19.9 r=18.6 i=18.8 z=18.1	Reference Frame: ICRS			
	<i>Comments: Category=GALAXY Description=[JET, NLR, QUASAR, RADIO GALAXY, WIND]</i>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(ACS.im.12 99753)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F165LP			Pattern 1, Exps 1-1 in J01_f (20) (1)	600 Secs (2532 Secs) [==>633.0 Secs (Pattern 1)] [==>633.0 Secs (Pattern 2)] [==>633.0 Secs (Pattern 3)] [==>633.0 Secs (Pattern 4)]	[1]
	2	(ACS.im.12 99753)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F165LP			Pattern 1, Exps 2-2 in J01_f (20) (1)	575 Secs (2204 Secs) [==>551.0 Secs (Pattern 1)] [==>551.0 Secs (Pattern 2)] [==>551.0 Secs (Pattern 3)] [==>551.0 Secs (Pattern 4)]	[2]
	3	(ACS.im.12 99752)	(2) J0113+0106	ACS/SBC, ACCUM, SBC	F150LP				337 Secs (313 Secs) [==>313.0 Secs]	[2]

